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## COMMISSION ON MILK STANDARDS.

### REPORT OF THE NATIONAL COMMISSION ON MILK STANDARDS OF THE NEW YORK MILK COMMITTEE, 1920.<sup>1</sup>

The National Commission on Milk Standards of the New York Milk Committee met in their annual convention in New York City at the New York Academy of Medicine on May 20 and 21, 1920. The members present were as follows:

John F. Anderson, M. D.  
W. A. Evans, M. D.  
Charles J. Hastings, M. D.  
J. N. Hurty, M. D.  
E. C. Levy, M. D.  
Prof. E. V. McCollum.  
Charles E. North, M. D.  
J. S. Neff, M. D.  
William H. Park, M. D.

M. P. Ravenel, M. D.  
Milton J. Rosenau, M. D.  
Prof. H. C. Sherman.  
Prof. L. L. Van Slyke.  
Chester H. Wells.  
Wm. C. Woodward, M. D.  
Dr. Redfield, representing Dr.  
Alsborg.

The program included the consideration of pasteurization, clarification, dried milk, vitamins, butter substitutes, ice cream, campaign for establishment of milk standards, bacterial testing of milk, education of public to increase the use of milk, school lunches and milk, a service bureau, milking machines, comparative cost of milk with other foods, dairy inspection, standardized and adjusted milk, reconstructed milk, etc. Many of these subjects were presented in the form of progress reports, their study and consideration to be continued for another year. The subjects on which resolutions were unanimously passed and released for publication are as follows.

#### (1) Pasteurization.

Experience with the pasteurization of milk by the use of the time and temperature recommended by this commission has justified in every way the selection of the time and temperature which were recommended, and the commission wishes, therefore, to confirm the original report on this subject by stating that so far as the commis-

<sup>1</sup> Previous reports were published in the Public Health Reports, May 10, 1912, pp. 673-700, Reprint No. 78; Aug. 22, 1913, pp. 1733-1756, Reprint No. 141; and Feb. 16, 1917, pp. 271-296, Reprint No. 383. Resolutions passed at the meeting held in Chicago, Ill., Dec. 18, 1918, were published in the Public Health Reports Jan. 17, 1919, pp. 69-71.

sion is aware, there is no reason why it should change the recommendation originally made regarding the proper time and temperature of pasteurization of milk. The recommendation originally made and published in the Public Health Reports, February 16, 1917, was as follows:

(a) That pasteurization of milk should be between the limits of 140° F. and 155° F. At 140° F. the minimum exposure should be 20 minutes. For every degree above 140° F. the time may be reduced by 1 minute. In no case should the exposure be for less than 5 minutes.

(b) In order to allow a margin of safety under commercial conditions, the commission recommends that the minimum temperature during the period of holding should be made 145° F., and the holding time 30 minutes.

## (2) Scurvy.

In 1917 the commission adopted a resolution to the effect that in its opinion the pasteurization of milk at 145° F. for 30 minutes destroys none of its food constituents. Inquiry conducted by the New York City health department into the records of the infant milk depots, where sometimes over 25,000 infants were fed daily on pasteurized milk, appears to bear out this assumption. Since that time there has been much careful research on the relation of scurvy to the lack of a protective substance in the food. It has been demonstrated to the satisfaction of all of the most eminent authorities in nutrition that scurvy is due to the lack of a specific dietary factor which is easily destroyed by heating, and that milk which has been pasteurized has lost, in part at least, its protective action against this disease.

It has likewise been demonstrated that there may be pronounced differences in the value of fresh, unheated milks in their antiscorbutic value, depending on the nature of the diet of the cow or lactating woman. The antiscorbutic substance is found abundantly only in fresh fruits, vegetables, green grass, and other forage. Cooked foods, with certain exceptions, such as tomatoes, are of little value, and the milk of a mother whose diet consists largely of cooked or dried or preserved foods will not protect her infant against this disease unless some substance rich in antiscorbutic properties be included. The milk of cows will be more effective as an antiscorbutic food when they are fed green foods.

In view of these new discoveries concerning the possibility of the variation of the nutritive value of milks, to some extent, with the diet and the seasons, and in view of the possible reduction of the food value of milk with respect to the antiscorbutic factor in the process of pasteurization, the commission recommends that orange juice or tomato juice or other antiscorbutic food be added to the diet of infants, especially those artificially fed. The commission wishes also to reaffirm its advocacy of the adoption of pasteurization by municipalities as a public health measure.

### (3) Infected Udders.

There is occasional danger to human beings from infected udders of dairy cows when the udder infection is due to pathogenic bacteria of human origin. The danger from udder infection when the bacteria are of bovine origin has not yet been determined and is uncertain, with the exception of infections from bovine tuberculosis, which are known to be dangerous to human beings. Every effort should be made to exclude udder infections from dairy herds. Pasteurization is a protection because it destroys the bacteria of udder infections in milk.

### (4) Service Bureau.

The commission recommends the establishment of a service bureau by the New York Milk Committee. This bureau should send a copy of the commission's reports to each governor, each State and Provincial health department, each State and Provincial food bureau, each mayor of cities of more than 10,000 inhabitants, and to each health officer of such cities.

The bureau should offer its services in—

- (a) the drawing of legislative measures relative to milk and milk products;
- (b) furnishing literature and speakers to promote the adoption of such legislation.

The service bureau should get track of agitation having milk legislation in view throughout the country, through the services of clipping bureaus, correspondence, and such other measures as are deemed wise.

The service bureau should cooperate with the Surgeon General of the United States Public Health Service and appropriate bureaus of the Department of Agriculture, the Children's Bureau, and other agencies.

*Resolved*, That the service bureau write each State health and education agency (boards of health, superintendents of education, etc.), suggesting that it provide wall charts, slogans, pictures, etc., to hang in each school, setting forth the need and advantage of a more abundant use of good milk as a food for children and adults;

That in this letter there should be a suggestion that such pictures, diagrams, charts, and slogans be developed in the schools of the State, through school and individual competitions.

### (5) Good milk and the school lunch movement.

The commission, in connection with the school lunch movement, recommended that every effort be made to emphasize the importance of good milk in the diet to promote its increased use in all systems of school feeding.

**(6) Dried Milks.**

The commission adopted the following report on the subject of dried and remade milks:

Whereas the commission is fully convinced that an increased consumption of milk in its various forms would be highly advantageous to the public health; and

Whereas the production and sale of dried and remade milk tends to increase, stabilize, and conserve the milk supply; and

Whereas all evidence now available favors the view that properly prepared dried milk may be regarded as of nutritional value equal to milk of light grade and that the vitamine content of dried milk and pasteurized milk is substantially the same: Therefore be it

*Resolved*, That the commission urge upon the health and food control officials a liberal attitude such as shall encourage and not hamper the dried milk industry.

The commission desires to reaffirm the resolution adopted by the commission at the Chicago meeting in 1918, regarding the favorable attitude to be taken toward the manufacture and sale of dried or remade milk. It is recognized, however, that all products will not be of the same grade and that grading will be necessary.

In our judgment, the sanitary requirements to be adopted for dried and remade milk, as far as applicable, should be the same as those for liquid milk of like grade.

Milk powder which contains less than 25 per cent of its solids in the form of milk fat should be labeled skimmed or partly skimmed:

Milk powder which contains less than 3 per cent of fats in its solids should be labeled skimmed;

Those containing between 3 and 25 per cent of milk fat in their solids should be labeled partly skimmed.

The term milk should be denied to any product in which the milk fat has been wholly or partly substituted by any other fat.

We shall have to defer other specific recommendations as to the grading of dried milk, but recommend the study of grading. The following suggestions are made as to labeling:

First, that the label show the quality of milk before it is dried, in terms of our present grades and standards;

Second, that the label show the approximate time and temperature of heating;

Third, that if anything has been added to the milk in the process of manufacture or otherwise, its presence and the name and amount of the substance added should be stated on the label;

Fourth, packages of dried milk should be labeled with the date of manufacture.



## SANITARY DISPOSAL OF SEWAGE THROUGH A SEPTIC TANK.

### A System of Simple Construction and Inexpensive Operation for Isolated Dwellings.<sup>1</sup>

By H. R. CROHURST, Associate Sanitary Engineer, United States Public Health Service.

In view of the frequent requests for a detailed description of practicable and economical methods of sewage disposal for the isolated home or the small group of homes supplied with running water and provided with toilet, sink, and bath fixtures, the following data are presented.<sup>2</sup>

In 1910, or about that time, the State board of health of New Hampshire was called upon to devise a practicable and sanitary method of sewage disposal for single residences, summer cottages, and hotels. As a result there has been developed by Robert Fletcher, D. Sc., C. E., president of the State board of health, the so-called "Free-flowing, tight, sewage tank," which, during the past 10 years, has been in successful operation, under varying conditions, in several hundred locations in that State.

The design, as now recommended by the State board, consists of a rectangular tank, built of concrete, without baffles, with a relatively tight-fitting cover and without ventilation. A space of from 12 to 15 inches is provided between the under side of the cover and the surface of the sewage. The cover is made to fit as tightly as possible, in order that the gas given off during the septic action may develop a slight pressure in the dead space above the sewage and serve to exclude outside air. The inlet and outlet pipes of the tank are provided with elbows, which turn downward into the sewage and end well below the surface. Experience in New Hampshire has shown that a capacity of 4 cubic feet (30 gallons) should be allowed for each person contributing to the tank.

The smallest tank recommended is 6 feet long, 3½ feet wide, and has a depth of sewage of 4½ feet. Such a tank has a capacity of about 94 cubic feet (excluding dead space above sewage) and would effectively serve 20 persons. It is not deemed advisable to build a tank smaller than this. For larger installations the following sizes are recommended:

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<sup>1</sup> The material in this article has been obtained from the special bulletin, "Free-flowing, Tight, Septic Tanks," by Robert Fletcher, D. Sc., C. E., published by the State Board of Health of New Hampshire; from information obtained from Mr. D. M. Tefft, health officer of Sugar Hill, N. H., who has had 11 years' experience in the construction and operation of tanks of this type; and from an inspection made by the writer, of tanks in operation at Chremont and Sugar Hill, N. H.

<sup>2</sup> EDITORIAL NOTE.—The simple and inexpensive method of sewage disposal here described has operated successfully over a period of several years. The design of the tank and the methods of effluent disposal are similar to those described in Public Health Bulletin No. 101, "Studies of Methods for the Treatment and Disposal of Sewage," by Earle B. Phelps, Leslie C. Frank, and C. P. Rhynus. This bulletin contains an extensive discussion of various methods of sewage disposal for single houses and small communities, applicable to any part of the country.

Number of persons.	Length.	Width.	Depth of sewage.
	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>
One family (and up to 20 persons).....	6	3.5	4.5
40 persons.....	8	4.5	5
60 persons.....	9	5	5
70 persons.....	11	5	5
150 persons.....	14	6	5.5
400 persons.....	24	8	7

The tanks should be located in the yard, as near the house as practicable, and should be buried in the ground and have a covering of 12 to 18 inches of soil. The temperature of house sewage combined with the heat generated by septic action helps to prevent freezing in winter.

As the effluent of a septic tank is only partially purified sewage containing organic matter which is potentially capable of causing objectionable conditions if not properly disposed of, and as it contains at all times many bacteria, among which may be those capable of causing disease, the proper disposal of septic-tank effluent is a matter of very great importance.

For the small installation subsurface irrigation seems to offer the easiest means of disposing of the tank effluent. Where the soil is porous and the seepage rapid, the effluent may be discharged into a leaching cesspool, blind drain, or subsurface tile system. The details of construction of the septic tank and various methods of effluent disposal, in a porous soil, are shown in Figure 1.

Where the soil is tight and does not allow the rapid passage of liquids, a filter trench may be required. This is constructed by laying two lines of tile, one above the other, in a trench or series of trenches, with an artificial filtering medium between the upper and lower line of tile. The tank effluent is distributed by the upper line of tile, trickles through the filtering material, and is collected in the lower line of tile, from which it may be discharged into an open ditch or into a watercourse. Where a filter trench is used for secondary treatment, there is usually, and always should be, provided a dosing chamber containing an automatic siphon, which collects the tank effluent and discharges it into the trench in a single large flush, thus utilizing the entire volume of the bed. A constant trickle from the tank overdoses a small portion of the trench. For larger installations where secondary treatment consists of sand filters, contact beds, or trickling filters, a dosing tank and automatic siphon are always needed. The construction details for a septic tank, dosing chamber with automatic siphon, and filter trench, are shown in Figure 2.

The sewer line from the house to the septic tank should not be less than 4 inches in diameter, preferably 6 inches, should have tight

joints, and should have a fall of about 1 foot in 100 feet. The tank should be made of concrete, carefully constructed, and made water-tight; and for large installations, reinforcing should be provided. The dosing chamber should have a capacity of about 80 gallons and should be equipped with a 3-inch automatic siphon. The tile lines should be 4 or 6 inches in diameter, laid with open joints, the upper portion of the opening being covered with tar paper, burlap, or old linoleum, to prevent soil from entering the line. The irrigation tiles should have a fall of about 2 or 3 inches per hundred feet. A mat of hay or straw laid over the tile lines and filter material serves to hold the back fill and prevent mud from entering when the ground is moist after rains. The first 10 to 15 feet between the tank and the irrigation system, or between the dosing chamber and the irrigation system, should have tight joints to prevent the effluent from soaking into the ground in the immediate vicinity of the tank.

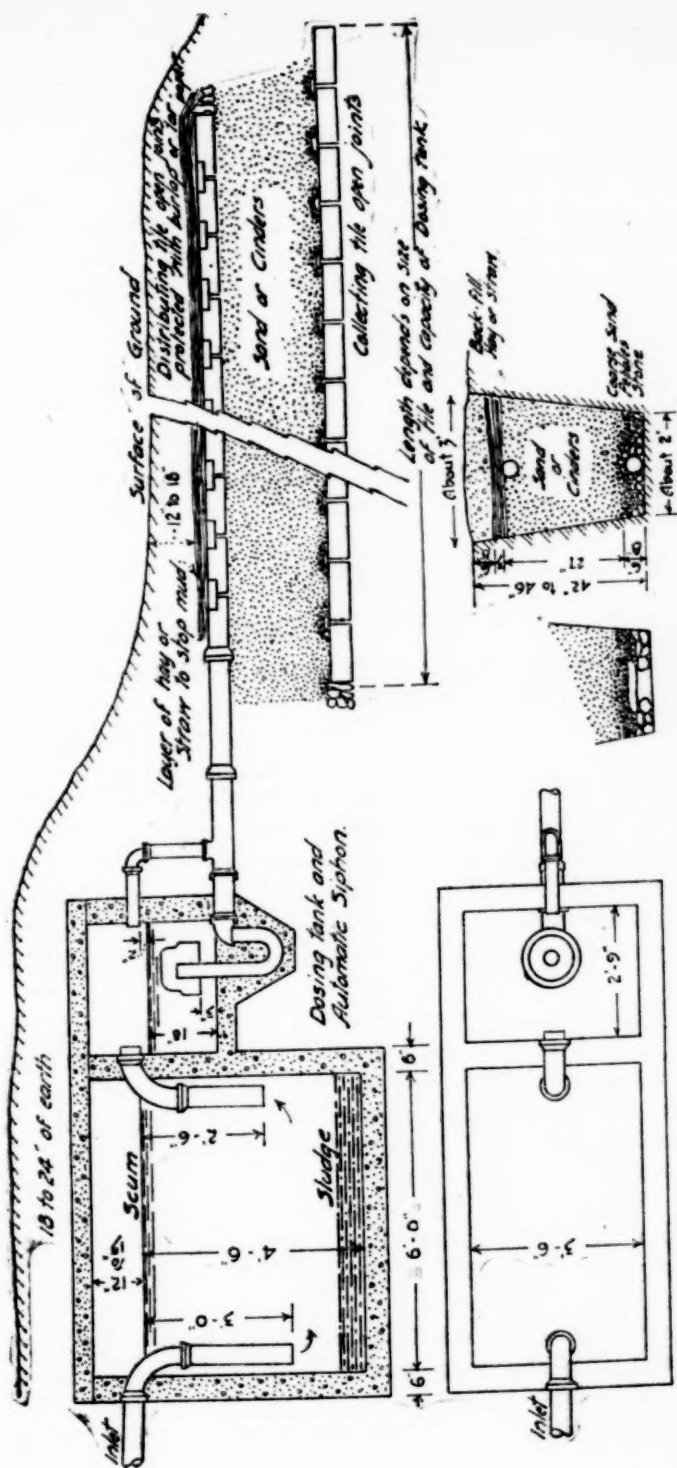
The length of tile lines in the disposal system will depend upon the character of the soil in which the tile is laid. In a coarse sandy soil, 20 feet per person using the tank may be sufficient; whereas in a tight sandy clay soil, 100 feet or more per person may be required. Where a dosing chamber and siphon are used, the size of dose determines the length of tile lines required. The tile lines should have a capacity equal to or greater than the capacity of the dosing chamber. Assuming the capacity of the dosing chamber to be 80 gallons, there should be provided about 125 feet of 4-inch tile, or about 60 feet of 6-inch, to receive at once the entire flush when the dosing tank is emptied.

In outlining plans for the construction of septic-tank systems, it is the rule to recommend the installation of a grease trap between the kitchen fixtures and the septic tank, to remove grease from the sewage. In the New Hampshire system no grease trap is provided, and the tanks appear not to be affected by the presence of the grease in the sewage. To prevent trouble at times, it is advisable, however, to remove as much grease as possible from the kitchen wastes and dispose of it by some other method. All excess water which can be excluded conveniently should be excluded from the tank, as continuous flow, without quiescent periods, disturbs septic action.

The oldest New Hampshire tanks have now been in operation and successfully disposing of combined household wastes for a period of 11 years, and, so far, have never required cleaning. The effluent is relatively clear and odorless and in some instances has been disposed of by irrigation over the surface of the ground without offense; but this method from a sanitary standpoint is not recommended.

For the single residence or small group of homes, where a sewerage system is not practicable, it appears that a sewage-disposal system of this type offers a reasonably cheap and efficient method of dis-





PLAN & SECTION OF SEPTIC TANK  
WITH DRAINING CHAMBER & SIPHON  
(For 20 people or less)

Blind drain.      Pipe drain.

SECTIONS OF FILTER TRENCH.

FIG. 2.

posal and requires a minimum amount of supervision after installation. The successful operation of these tanks in New Hampshire suggests that similar results could be obtained in other sections of the country having comparable climatic conditions. The successful operation of a system of this type in sections having summer temperatures much higher and of longer duration can not be definitely stated before a study of installations under such conditions has been made; but it appears probable that this system will give results in the southern sections of the United States similar to those given by it in New Hampshire.

Before installing a system of this kind in any locality, especially in limestone sections of the country, the opinion of the State health authorities should first be obtained as to whether the character of the soil is such that would permit of the operation of the system without danger, owing to the seepage of the partially purified sewage through voids.

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### THE BEDBUG.

#### **Its Relation to Public Health, its Habits and Life History, and Methods of Control.**

The bedbug is one of the numerous insects which have been suspected of conveying disease to man. Compared with such insect pests as mosquitoes, lice, and fleas, however, its rôle is decidedly a minor one. It has been claimed that the bedbug can take up the microparasites of European relapsing fever, plague, and possibly leprosy, along with the blood of men or animals suffering from these diseases. It is also possible that in rare instances the bedbug may transmit plague or European relapsing fever to man. On the other hand, there is no convincing evidence that the bedbug is the usual and ordinary insect transmitter of these or any other diseases at present known to us.

If the bedbug acts as a transmitter of disease, it apparently does so by the accidental carriage of disease elements on the mouth parts; but this occurs only under the most favorable conditions. These would require, first, the presence of great numbers of microparasites on the skin or in the blood of a man or animal sick with some disease transmissible to man by subcutaneous inoculation; second, it would probably be necessary that there should be many bugs biting in order that one or more of them should bite some healthy person within a rather short space of time after these insects had fed on the infected individual.

In actual practice these conditions would be found only in the most filthy and insanitary surroundings and would call for drastic measures to exterminate all vermin. It is, of course, possible that under unsettled conditions where sick and well are crowded together



with no facilities for cleanliness, bedbugs might act as transmitters of septicemic diseases. Experience has shown that under such grossly insanitary conditions, such insects as fleas and lice appear to be and are far more dangerous as carriers of disease. Special measures for their extermination should be taken. Added precautions for the examination of bedbugs under these conditions would probably not be justified by the results.

Notwithstanding the minor rôle which must be assigned the bedbug as a carrier of disease, its presence is an offense against sanitary decency. Its bites are quite poisonous to some people and its odor most disagreeable; and every effort should be made to keep all dwellings, hospitals, ships, and other premises free from these disgusting insects.

Dr. L. O. Howard, Chief of the Bureau of Entomology, United States Department of Agriculture, and consultant United States Public Health Service, has permitted the quotation of the following passages from Farmer's Bulletin No. 754, by C. L. Marlatt, which gives an authoritative account of the habits, life history, and the means of control of these insects.

#### **"General Characteristics.**

"The bedbug belongs to the order Hemiptera, which includes the true bugs or piercing insects, characterized by possessing a piercing and sucking beak. The bedbug is to man what the chinch bug is to grains or the squash bug to cucurbs. Like nearly all the insects parasitic on animals, however, it is degraded structurally, its parasitic nature and the slight necessity for extensive locomotion having resulted, after many ages doubtless, in the loss of wings and the assumption of a comparatively simple structure. Before feeding, the adult is much flattened, oval, and in color is rust red, with the abdomen more or less tinged with black. When engorged, the body becomes much bloated and elongated and brightly colored from the ingested blood. The wings are represented by the merest rudiments, barely recognizable pads, and the simple eyes or ocelli of most other true bugs are lacking. The absence of wings is a most fortunate circumstance, since otherwise there would be no safety from it even for the most careful of housekeepers. Some slight variation in length of wing pads has been observed, but none with wings showing any considerable development has ever been found.

#### **"Habits and Life History.**

"The bedbug is normally nocturnal in habits and displays a certain degree of wariness, caution, and intelligence in its efforts at concealment during the day. Under the stress of hunger, however, it will emerge from its place of concealment in a well-lighted room at night,

so that under such circumstances keeping the gas or electric light burning is not a complete protection. It has been known under similar conditions to attack human beings voraciously in broad daylight. It usually leaves its victim as soon as it has become engorged with blood and retires to its normal place of concealment, either in cracks in the bedstead, especially if the latter be one of the wooden variety, or behind wainscoting, or under loose wall paper; and in these and similar places it manifests its gregarious habit by collecting in masses. It thrives particularly in filthy apartments and in old houses which are full of cracks and crevices, in which it can conceal itself beyond easy reach. As just noted, the old-fashioned, heavy, wooden-slatted bedsteads afford especially favorable situations for the concealment and multiplication of this insect, and the general use in later years of iron and brass bedsteads has very greatly facilitated its eradication. Such beds, however, do not insure safety, as the insects are able to find places of concealment even about such beds, or get to them readily from their other hiding places.

"The bedbug takes from 5 to 10 minutes to become bloated with blood, and then retires to its place of concealment for 6 to 10 days for the quiet digestion of its enormous meal, and for subsequent molting, or reproduction if in the adult stage."

"The eggs hatch in a week or 10 days in the hot weather of mid-summer, but cold may lengthen or even double this incubation period or check development altogether. The young escape by pushing up the lid-like top with its projecting rim. When first emerged, they are yellowish white and nearly transparent, the brown color of the more mature insect increasing with the later molts."

"Unfavorable conditions of temperature and food will necessarily result in great variation in the number of generations annually and in the rate of multiplication, but allowing for reasonable checks on development, there may be at least four successive broods in a year in houses kept well heated in winter."

#### "Food and Longevity.

"Under normal conditions the food of the common bedbug is obtained from human beings only, and no other unforced feeding habit has been reported. It is easily possible, however, to force the bedbug to feed on mice, rats, birds, etc., and probably it may do so occasionally in nature in the absence of its normal host. The abundance of this insect in houses which have long been untenanted may occasionally be accounted for by such other sources of food, but probably normally such infestation can be explained by the natural longevity of the insect and its ability to survive for practically a year, and perhaps more, without food."

### **"Influence of Temperature.**

"As a messmate of human beings in dwelling houses, the bedbug is normally protected from extreme cold and is known to be an abundant and serious pest far north. In fact, it is often more troublesome in north temperate latitudes than farther south. This may be accounted for partly by the fact that the bedbug is very sensitive to high temperatures, and a temperature of 96° to 100° F. or more, accompanied with a fairly high degree of humidity, results in the death of large numbers of the bugs. The mature or partly mature bedbugs can stand comparatively low temperatures, even below freezing, for a considerable period. The eggs and newly hatched larvæ, however, succumb to a temperature below freezing, if this condition is prolonged for from 15 days to a month. The feeding and developing activity of the insect practically ceases at 60° F., the insect remaining quiescent and in semihibernation at temperatures below this point. The most favorable temperatures for activity are between 60° and 98° F. The activity of the insect is controlled entirely by temperature and food supply, and, therefore, in heated houses the insect may remain active throughout the winter. There is some protection in winter, therefore, in sleeping in cold bedrooms."

### **"The Bite of the Bedbug.**

"The bite of the bedbug is decidedly poisonous to some individuals, resulting in a slight swelling and disagreeable inflammation. To such persons the presence of bedbugs is sufficient to cause the greatest uneasiness, if not to put sleep and rest entirely out of the question. With others, however, who are less sensitive, the presence of the bugs may not be recognized at all, and, except for the occasional staining of the linen by a crushed individual, their presence might be entirely overlooked. The inflammation experienced by sensitive persons seems to result chiefly from the puncture of the skin by the sharp piercing setæ which constitute the puncturing element of the mouth parts, as there seems to be no secretion of poison other than the natural fluids of the mouth.

"The biting organ of the bedbug is similar to that of other insects of its order. It consists of a rather heavy, fleshy under lip (the only part ordinarily seen in examining the insect), within which lie four thread-like hard filaments or setæ which glide over one another with an alternating motion and pierce the flesh. The blood is drawn up through the beak, which is closely applied to the point of puncture, and the alternating motion of the setæ in the flesh causes the blood to flow more freely.

"To allay the irritation set up by the bite of the bedbug, peroxide of hydrogen or dioxygen may be used with good results.

"Tincture of iodine either at ordinary or double strength is also a good counterirritant for use in cases of flea, mosquito, bedbug, and other insect bites, but should be used with caution on the tender skin of small children and on those who are affected with or disposed to eczemic disorders."

#### **"Natural Enemies of the Bedbug.**

"Living always in houses as it does and being well concealed, the bedbug is not normally subject to much if any control by natural enemies. Certain other household insects, however, do occasionally prey upon the bedbug, as, for example, the house centipede and the common little red house ant. Such enemies, however, are of very small importance and yield little, if any, effective control except under very exceptional circumstances."

#### **"Remedies.**

"Undoubtedly the most efficient remedy for the bedbug is to fumigate the infested house or rooms with hydrocyanic-acid gas. This gas will penetrate into every crevice in the house or room where the bedbugs conceal themselves and has an immediate effectiveness which gives it an important recommendation, especially when the infestation is considerable or of long standing. This method of fumigation should be intelligently employed, as the gas is deadly poisonous." Five ounces of potassium cyanide per 1,000 cubic feet of space should be employed; exposure, one hour.<sup>1</sup>

"The fumes of burning sulphur are also a very efficient means of control where the conditions are such that this method can be used, readily destroying the insect in all stages, including the egg. The treatment is inexpensive compared with the use of hydrocyanic-acid gas and offers much less risk of danger to human beings. There is, however, a considerable risk of injury to household fabrics, furnishings, and wall papers from the strong bleaching quality of sulphur fumes. This danger will be somewhat diminished if the fumigation can be done at a time when the room or house is thoroughly dried out, as in winter by a furnace or other heating system. Further precautions should be taken by removing all metallic surfaces from the room or building, or by protecting them with a coating of vaseline."

Four pounds of sulphur are recommended for each 1,000 cubic feet of space, and the building should be closed for the treatment for at least five or six hours<sup>1</sup> \* \* \*. "Sulphur candles may be used where available, or the sulphurous gas or fumes can be generated by burning the sulphur in a dish placed in the center of the room, and for protection set within a larger vessel. Thoroughgoing precautions

<sup>1</sup>Creel, R. H., and Faget, F. M., Cyanide Gas for the Destruction of Insects, with Special Reference to Mosquitoes, Fleas, Body Lice, and Bedbugs: Public Health Reports, June 9, 1916, pp. 1464-1475. Reprint No. 343.

must be taken to prevent accidental overflowing or the starting of a fire, and after the fumigation the house should be given a thorough airing.

"Other gases have been experimented with, such as formalin and the vapors of benzine, naphthalene, and camphor, but these gases are of little value. Similarly, insect powders are of little value, largely from the difficulty of getting them into the crevices and other places of concealment of the insects.

"The old-fashioned household remedies referred to below are effective enough, though at a greater cost of time and personal effort. They will, however, be often of much service in the case of slight or recent infestations, or where the employment of more poisonous and troublesome gases is objected to or is impracticable. Of these simple methods of control perhaps the most efficient is in very liberal applications of benzine or kerosene, or any other of the lighter petroleum oils, introduced with small brushes or feathers, or by injecting with syringes into all crevices of beds, furniture, or walls where the insects may have concealed themselves. Corrosive sublimate is also of value, and oil of turpentine may be used in the same way. The liberal use of hot water, wherever it may be employed without danger to furniture, etc., is also an effectual method of destroying both eggs and active bugs.<sup>2</sup>

"Various bedbug remedies and mixtures are for sale, most of them containing one or another of the ingredients mentioned, and these are frequently of value. The great desideratum, however, in a case of this kind, is a daily inspection of beds and bedding, particularly the seams and tufting of mattresses, and of all crevices and locations about the premises where these vermin may have gone for concealment. A vigorous campaign should, in the course of a week or so

<sup>2</sup> "A remedy for the bedbug has been devised by Mr. R. H. Pettit ('Notes on two insecticidal agents,' 19th Rpt. Mich. Acad. Sci., p. 159-160, 1908) as a substitute for hydrocyanic-acid gas and sulphur, and is reported to have proved very successful. The preparation of this insecticide and its application is described as follows:

"Alcohol is drawn through pyrethrum in a funnel until the powder is well washed and a large part of the resinous principle extracted. To do this, the powder is placed in a large funnel with filter-plate and a layer of cotton wool at the bottom. An aspirator is attached and the alcohol is at first slowly and later rapidly sucked through six or eight times, during which operation it becomes highly colored. To this liquid as a basis, are added several oils to give permanence to the application. Both alcohol and pyrethrum evaporate so quickly that it was thought best to carry in some heavier volatile oils whose effects would last several days or even weeks. The formula when completed stands as follows:

"To the extract made by washing 490 grams of pyrethrum with 2,000 c. c. of strong alcohol, are added—

50 grams gum camphor.

150 c. c. cedar wood oil.

25 grams oil citronella.

25 grams oil lavender.

"The application is best made with a large-sized atomizer, one holding a pint or more and working with a piston instead of a rubber bulb. \* \* \* To obtain the best results, repeat the treatment after about two weeks. We have tried this mixture repeatedly and with uniformly gratifying results. Usually one application, if thoroughly made, put a period to the complaints, about eight to ten ounces being required in an average sleeping room. The odor remains some little time in a room, but is not disagreeable to the average person.

"This remedy can be readily prepared by a pharmacist in any drug store."



at the outside, result in the extermination of this very obnoxious and embarrassing pest."

*"Temperature control.*—The possibility of temperature control is indicated in the discussion elsewhere of the effect of temperature on this insect. A temperature maintained below freezing for 10 or 15 days destroys the eggs, and this temperature continued for 15 days to a month will destroy the newly hatched young. It may be, therefore, that if infested houses in cold climates should be opened up and allowed to remain at a temperature well below freezing for a considerable period, all eggs and the young, and possibly most if not all of the adults, would be exterminated. This method of control might perhaps be practicable at least in the case of summer houses in the North which are left untenanted in the winter.

"The maintaining of high temperatures may be an even more efficient method of control. The activity of the bedbug is at its greatest between 60° and 70° to 75°. As indicated elsewhere, in a temperature of 96° to 100° F., accompanied with a high degree of humidity, newly hatched bedbugs perish within a few days, and, if this temperature is raised to 113° F., in a few minutes.<sup>3</sup> A temperature of 113° will also destroy the eggs, and with these higher temperatures the item of humidity is not apparently important."

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### VACCINATION AND SMALLPOX MORTALITY.

The following account of a smallpox outbreak in Glasgow, Scotland, is taken from The Medical Officer, London:<sup>1</sup>

"Early in September the medical officer of health dealing with smallpox in Glasgow reported that since the outbreak began 477 patients have been admitted to hospital—459 from within the city and 18 from adjoining areas. Of the cases, 128 were children under 15 years of age, of whom 98 were unvaccinated, while the remaining 30 had been vaccinated in infancy. Attention is again drawn to the difference in severity of the disease in these two groups, vaccinated and unvaccinated children. None of those who had been vaccinated in infancy have died, while 32 of the unvaccinated died, a death rate among unvaccinated children of 33 per cent. Among the 349 patients in the group aged 15 years and over, 9 were unvaccinated, 6 of whom died. Evidence of previous vaccination was doubtful in 6, 2 of whom died. Of the remaining 334 patients vaccinated in infancy, 54 have died.

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<sup>3</sup> EDITORIAL NOTE.—An account of successful use of live steam to eradicate bedbugs in bunkhouses, as practiced by a lumber company in Oregon, was published in Public Health Reports, Nov. 28, 1919, pp. 2713-2714. In that instance steam pipes were tapped, after closing all doors and windows, and a temperature of 160° F. was held for approximately 3 hours. The officials of the company stated that 2 months after the steaming no signs of bedbugs had been found.

<sup>1</sup> Public Vaccination Service Notes, The Medical Officer, Oct. 23, 1920, p. 6.



"The relationship between vaccinated state and mortality may be set forth as follows:

	Number of cases.	Deaths.	Mortality rate.
Vaccinated in infancy.....	361	54	Per cent. 15
Unvaccinated.....	107	38	35
No definite evidence of successful vaccination.....	6	2	33
	477	94	20

"The relative excess of mortality among the unvaccinated therefore continues. It may be added that so far no cases have occurred among the medical, nursing, or administrative staff engaged in dealing with patients."

Dr. W. McConnel Wanklyn, a vigorous antismallpox fighter in England, has made exhaustive studies, both clinical and administrative, on smallpox over a long period of time, and the following cardinal principles have dominated his antismallpox campaign: "(1) Inform the public of the risk they are running; (2) make the fullest use of routine vaccination; (3) push vaccination in an outbreak of smallpox and very promptly; and (4) emphatically, let the authorities be constantly on the alert."<sup>2</sup>

### PUBLIC HEALTH ENGINEERING ABSTRACTS.

**Experience with Imhoff tanks in Minnesota.**—J. A. Childs, Engineer, Division of Sanitation, Minnesota State Board of Health, St. Paul, Minn.—*Municipal and County Engineering*, Vol. LIX, No. 5, November, 1920, p. 162.

The first Imhoff tank in Minnesota was constructed in 1911. Since then 40 municipal and institutional tanks have been installed, together with two or three hundred Imhoff tanks used in the treatment of school-building sewage. The earlier designs were patterned after German constructions, but it was soon found that the sludge chamber capacity was not large enough, owing to the long, cold winters in Minnesota, which retarded the action of the sludge. The State board of health now requires a minimum capacity, below the settling compartment slots, of 2 cubic feet per capita tributary to the system, which eliminates this difficulty.

A properly designed Imhoff tank must not be regarded as an automatic piece of apparatus, but should receive intelligent care to give the best results, as has been demonstrated in Minnesota. For the average Minnesota municipality, there seems to be no type of

<sup>2</sup> Public Vaccination Service Notes, The Medical Officer, Oct. 23, 1920, p. 6.

tank treatment which meets all requirements better than that of the Imhoff tank.

**General sanitary conditions in Czechoslovakia.**—*Bulletin of the League of Red Cross Societies*, Geneva, Switzerland, Vol. II, No. 1, October, 1920, p. 33.

Only a few of the large cities of Slovakia and Carpathian Russia have municipal water supplies. Among all the cities of 4,000 population or more, 10 per cent have a supply of 70 liters per man per day; 6 per cent, a supply of 20 to 60 liters per man per day; and 84 per cent, no public water supply.

The water systems of the large cities are, in general, well built and designed to assure a safe supply.

In most of the towns, villages, and rural districts one sees very commonly the dug well with its long sweep. The water level is usually not far below the surface of the ground—perhaps from 3 to 4 up to 8 or 10 meters. The surroundings, the proximity of dwelling houses, cesspools, barns and barnyards, manure piles, etc., and the frequent poor construction of the well curb and the neglect of careful drainage about the well, form accumulative evidence that the people are unaware of or indifferent to the dangers of polluted well water. The fact that typhoid fever and other intestinal diseases are endemic in many regions is therefore not surprising.

**General policies of the Engineering Division of the Pennsylvania Department of Health.**—C. A. Emerson, jr., Chief Engineer, Engineering Division, State Department of Health, Harrisburg, Pa., July, 1920.

During the past summer months the engineering division of the Pennsylvania Department of Health has been reorganized into sections on Housing, Investigation of Industrial Wastes Pollution, Restaurant Hygiene Inspection, Rural Sanitation, Waterworks and Sewerage, and Chemical and Bacteriological Laboratory. The State has been divided into eight districts, each district in charge of an engineer with one or more assistant engineers. Under general direction of the chief of the waterworks and sewerage section, the district engineer has responsible charge of waterworks and sewerage applications, examination of plans, field investigations, and reports thereon and on the operation of waterworks and sewerage systems. After careful investigation of the present use and conditions of the waters of the State in his district, the district engineer will recommend to the chief engineer policies for the use of various streams or parts of streams in his district as regards water supply and sewage disposal, stating the degree of purification for water and treatment of sewage required. When approved by the chief engineer and directed by the chief of the waterworks and sewerage section, the district engineer will have investigations made for the rural sanitation and housing sections and will make recommendations for the correction of insani-

tary conditions involving engineering in his district. When approved by the chief engineer, the district engineer, under the general direction of the chief of the waterworks and sewerage section, will cooperate with the county medical director or the medical division in typhoid epidemics. The district engineer will limit his activities to engineering matters, such as water supplies, sewerage, excreta disposal, milk supplies, etc., leaving all medical matters, unless otherwise specifically ordered, under the jurisdiction of the medical officers.

The rural sanitation section has one or more district inspectors in each district, whose duties are as follows:

(a) In second-class townships: Inspect and secure abatement of public health nuisances requiring knowledge beyond the ability of the department health officers.

(b) In municipalities: Inspect and secure abatement of public health nuisances in cases where the local board of health fails to secure abatement and where the conditions are not sufficiently acute for the State department of health to take over the functions of the local board of health.

(c) Assist in instruction and guidance of local health committees and local boards of health.

(d) Report on the efficiency of department health officers.

(e) Inspect and secure abatement of pollutions on watersheds of streams used for public water supplies, and train health officers and water company representatives in doing such work.

(f) Serve notices, secure evidence, etc., incidental to prosecutions in cases of public health nuisances and stream pollutions.

(g) Sample private water supplies as ordered.

(h) Such other duties as may be assigned by the chief of the rural sanitation section.

When temporarily assigned by the chief of the rural sanitation section to the waterworks and sewerage section, district inspectors will perform the following work under the direction of the district engineer or his representative:

(a) Make field investigations to determine compliance with provisions of waterworks and sewerage permits and decrees.

(b) Sample public water supplies.

(c) Supervise the installation and maintenance of emergency waterworks disinfection apparatus.

(d) Post notices.

(e) Seal by-pass connections of public water supplies.

(f) Take "census" during typhoid fever epidemics.

(g) Inspect the production, handling, and distribution of milk supplies during typhoid epidemic investigations.

(h) Such other duties as may be assigned by the district engineer.

## DEATHS DURING WEEK ENDED NOV. 27, 1920.

[From the "Weekly Health Index," Nov. 30, 1920, issued by the Bureau of the Census, Department of Commerce.]

Deaths from all causes in certain large cities of the United States during the week ended Nov. 27, 1920, infant mortality (per cent), annual death rate, and comparison with corresponding week of preceding years.

City.	Population Jan. 1, 1920, subject to revision.	Week ended Nov. 27, 1920.		Average annual death rate per 1,000. <sup>2</sup>	Per cent of deaths under 1 year.	
		Total deaths.	Death rate. <sup>1</sup>		Week ended Nov. 27, 1920.	Previous year or years. <sup>3</sup>
Akron, Ohio.....	208,435	28	7.0	9.2	42.9	2.4
Albany, N. Y.....	113,341	32	15.2	C 14.3	15.2	C 6.5
Atlanta, Ga.....	200,616	59	15.3	C 14.5	3.4	C 7.3
Baltimore, Md.....	733,826	204	14.5	A 15.5	9.8	A 15.3
Birmingham, Ala.....	178,270	55	16.1	A 19.6	7.3	A 11.3
Boston, Mass.....	747,923	187	13.0	A 16.2	15.5	A 13.7
Bridgeport, Conn.....	143,152	33	12.0	A 15.1	15.2	A 17.6
Buffalo, N. Y.....	506,775	125	12.9	C 12.5	16.0	C 15.0
Cambridge, Mass.....	109,456	30	14.3	A 15.1	26.7	A 15.0
Chicago, Ill.....	2,701,705	594	11.5	A 12.9	15.5	A 17.0
Cincinnati, Ohio.....	401,247	93	12.1	C 16.8	10.8	C 9.3
Cleveland, Ohio.....	796,836	186	12.2	C 9.6	15.1	C 13.8
Columbus, Ohio.....	237,031	60	13.2	C 13.4	15.0	C 16.7
Dallas, Tex.....	158,976	33	10.8	A 12.2	6.1	A 8.6
Dayton, Ohio.....	153,830	23	7.8	C 10.3	21.7	C 16.7
Denver, Colo.....	256,491	75	15.2	A 14.1	13.3	
Detroit, Mich.....	993,739	178	9.3		21.9	
Fall River, Mass.....	120,485	32	13.8	C 14.7	28.1	C 23.5
Grand Rapids, Mich.....	137,634	29	11.0	C 10.3	17.2	C 11.1
Hartford, Conn.....	138,036	31	12.8		17.6	
Houston, Tex.....	138,276	24	9.1		4.2	
Indianapolis, Ind.....	314,194	83	13.8	C 13.6	9.6	C 7.4
Jersey City, N. J.....	298,079	75	13.1	C 12.1	17.3	C 11.6
Kansas City, Kans.....	101,177	28	14.4		10.7	
Kansas City, Mo.....	324,410	81	13.0	C 13.0	14.8	C 7.5
Los Angeles, Calif.....	576,673	126	11.4	A 14.7	7.9	A 12.1
Louisville, Ky.....	234,891	76	16.9	C 11.8	9.2	C 13.2
Lowell, Mass.....	112,479	31	14.4	A 12.4	19.4	A 10.6
Memphis, Tenn.....	162,351	53	17.0	C 24.7	13.2	C 5.6
Milwaukee, Wis.....	457,147	101	11.5	A 11.7	21.8	A 18.8
Minneapolis, Minn.....	380,582	75	10.3	C 8.3	12.0	C 16.7
Nashville, Tenn.....	118,342	53	23.4	C 17.2	15.1	C 7.7
Newark, N. J.....	414,216	102	12.8	C 12.4	11.8	C 15.3
New Bedford, Mass.....	121,217	25	10.8	A 16.6	28.0	A 30.5
New Haven, Conn.....	162,519	25	8.0	C 8.1	12.0	C 12.0
New Orleans, La.....	387,219	138	18.6	A 21.4	12.3	A 12.0
New York, N. Y.....	5,620,048	1,232	11.4	C 12.0	13.6	C 12.4
Norfolk, Va.....	115,777	16	7.2		18.8	
Oakland, Calif.....	216,361	48	11.6	A 12.4	20.8	A 10.5
Omaha, Nebr.....	191,601	26	7.1	C 9.1	15.4	C 9.1
Philadelphia, Pa.....	1,823,158	458	13.1	14.6	14.8	12.9
Pittsburgh, Pa.....	588,193	160	14.2	C 12.3	12.5	C 14.5
Portland, Ore.....	258,288	53	10.7	C 12.4	7.5	C 13.1
Providence, R. I.....	237,595	61	13.4	C 15.2	16.4	C 10.1
Richmond, Va.....	171,667	48	14.6	C 19.4	14.6	C 4.8
Rochester, N. Y.....	285,750	61	10.8	C 10.7	16.4	C 8.3
St. Louis, Mo.....	772,897	174	11.7	C 10.9	5.2	C 6.8
St. Paul, Minn.....	234,680	45	10.0	C 13.8	15.6	C 6.5
Salt Lake City, Utah.....	118,110	19	8.4	A 11.3	26.3	
San Francisco, Calif.....	506,676	114	11.7	C 14.0	6.1	C 5.9
Seattle, Wash.....	315,652	39	6.4	A 8.6	7.7	A 6.9
Spokane, Wash.....	101,294	21	10.5	C 8.5	4.8	C 23.5
Springfield, Mass.....	129,338	28	11.3		21.4	
Syracuse, N. Y.....	171,647	33	10.0	C 10.4	21.2	C 11.8
Toledo, Ohio.....	243,164	58	12.4	A 14.3	15.5	A 15.4
Trenton, N. J.....	119,283	36	15.7	A 16.3	25.0	A 14.6
Washington, D. C.....	437,571	132	15.7	A 16.0	12.1	A 11.0
Wilmington, Del.....	110,168	30	14.2	C 11.0	10.0	
Worcester, Mass.....	179,754	42	12.2	C 13.2	11.9	C 22.2
Yonkers, N. Y.....	100,176	17	8.8	A 11.5	29.4	A 18.0
Youngstown, Ohio.....	132,358	33	13.0		21.2	

<sup>1</sup> Annual rates per 1,000 population.<sup>2</sup> "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1919.<sup>3</sup> Data are based on statistics of 1915, 1916, and 1917.

Summary of information received by telegraph from industrial insurance companies for week ended Nov. 27, 1920.

Policies in force..... 44,841,423  
 Number of death claims..... 6,598  
 Death claims per 1,000 policies in force, annual rate..... 7.7

# PREVALENCE OF DISEASE.

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.*

## UNITED STATES.

### CURRENT STATE SUMMARIES.

#### Telegraphic Reports for Week Ended Dec. 4, 1920.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

ALABAMA.		CONNECTICUT—continued.	
	Cases.		Cases.
Diphtheria.....	27	Diphtheria:	
Hookworm.....	67	Bridgeport.....	13
Influenza.....	6	Hartford.....	15
Scarlet fever.....	12	New Britain.....	12
Smallpox.....	15	New Haven.....	17
Tuberculosis.....	9	Scattering.....	80
Typhoid fever.....	9	German measles.....	1
		Influenza.....	10
		Measles.....	35
		Mumps.....	26
		Pneumonia (lobar).....	27
		Scarlet fever:	
		Bridgeport.....	16
		New Haven.....	21
		Scattering.....	72
		Tetanus.....	1
		Tuberculosis (all forms).....	41
		Typhoid fever.....	9
		Whooping cough.....	53
ARKANSAS.		DELAWARE.	
Cerebrospinal meningitis.....	2	Chicken pox.....	4
Chicken pox.....	2	Diphtheria.....	8
Diphtheria.....	49	Malaria.....	1
Influenza.....	47	Pneumonia.....	3
Malaria.....	38	Scabies.....	1
Measles.....	131	Scarlet fever.....	6
Ophthalmia neonatorum.....	1	Typhoid fever.....	4
Pellagra.....	5	Tuberculosis.....	9
Scarlet fever.....	29	Whooping cough.....	5
Smallpox.....	1		
Trachoma.....	3		
Tuberculosis.....	11		
Typhoid fever.....	17		
Whooping cough.....	69		
		FLORIDA.	
		Cerebrospinal meningitis.....	1
		Diphtheria.....	25
		Influenza.....	2
		Malaria.....	15
		Pneumonia.....	5
		Scarlet fever.....	12
		Smallpox.....	8
		Typhoid fever.....	5
CALIFORNIA.			
Influenza.....	16		
Lethargic encephalitis—San Francisco.....	2		
Smallpox:			
Berkeley.....	8		
Fullerton.....	9		
Monterey.....	11		
Sacramento.....	18		
San Francisco.....	17		
Scattering.....	38		
Typhoid fever.....	8		
CONNECTICUT.			
Cerebrospinal meningitis.....	1		
Chicken pox.....	29		

GEORGIA.	Cases.
Chicken pox.....	9
Conjunctivitis (acute infectious).....	3
Dengue.....	3
Diphtheria.....	27
Dysentery (amebic).....	1
Hookworm.....	3
Influenza.....	15
Malaria.....	20
Measles.....	15
Mumps.....	2
Pneumonia.....	13
Polio-myelitis.....	1
Scarlet fever.....	12
Septic sore throat.....	6
Smallpox.....	28
Tuberculosis (pulmonary).....	9
Typhoid fever.....	9
Typhus fever.....	1
Whooping cough.....	12

ILLINOIS.	Cases.
Cerebrospinal meningitis—Chicago.....	5
Diphtheria:	
Chicago.....	333
Decatur.....	14
Evanston.....	22
Moline.....	12
Oak Park.....	13
Scattering.....	111
Influenza.....	32
Pneumonia.....	138
Polio-myelitis:	
Abingdon.....	2
Chicago.....	1
Scarlet fever:	
Alton.....	9
Chicago.....	182
Chicago Heights.....	11
Menard County—	
Oakford Township.....	9
Sandridge Township.....	11
Oak Park.....	13
Springfield.....	34
Scattering.....	157

Smallpox:	
Gillespie.....	8
Madison.....	9
Rockford.....	10
Scattering.....	76
Typhoid fever.....	14

INDIANA.	Cases.
Cerebrospinal meningitis:	
DeKalb County.....	1
Vanderburg County.....	1
Diphtheria.....	194
Scarlet fever.....	302
Smallpox.....	210
Typhoid fever.....	21

IOWA.	Cases.
Diphtheria.....	30
Polio-myelitis—Cedar Rapids.....	1
Scarlet fever.....	76

IOWA—continued	Cases.
Smallpox:	
Decorah.....	13
Hite man.....	25
Scattering.....	91

KANSAS.	Cases.
Cerebrospinal meningitis.....	1
Chicken pox.....	61
Diphtheria.....	301
Influenza.....	27
Measles.....	262
Mumps.....	2
Pellagra.....	3
Pneumonia.....	25
Scarlet fever.....	326
Smallpox.....	43
Trachoma.....	1
Tuberculosis.....	44
Typhoid fever.....	11
Whooping cough.....	42

LOUISIANA.	Cases.
Cerebro-spinal meningitis.....	3
Diphtheria.....	21
Scarlet fever.....	17
Smallpox.....	63
Typhoid fever.....	11

MAINE.	Cases.
Chicken pox.....	18
Diphtheria.....	21
German measles.....	1
Measles.....	73
Mumps.....	5
Pneumonia.....	8
Polio-myelitis—Athens.....	1
Scarlet fever.....	21
Smallpox.....	2
Tuberculosis.....	31
Typhoid fever.....	17
Whooping cough.....	2

MARYLAND. <sup>1</sup>	Cases.
Cerebrospinal meningitis.....	2
Chicken pox.....	48
Diphtheria.....	89
German measles.....	1
Influenza.....	32
Lethargic encephalitis.....	1
Measles.....	48
Mumps.....	6
Ophthalmia neonatorum.....	5
Pneumonia (all forms).....	62
Polio-myelitis.....	1
Scarlet fever.....	53
Septic sore throat.....	1
Smallpox.....	1
Tuberculosis.....	81
Typhoid fever.....	26
Whooping cough.....	69

<sup>1</sup> Week ended Friday.



MASSACHUSETTS.		NEW MEXICO.	
	Cases.		Cases.
Cerebrospinal meningitis.....	5	Chicken pox.....	27
Chicken pox.....	232	Conjunctivitis.....	4
Conjunctivitis (suppurative).....	6	Diphtheria.....	25
Diphtheria.....	291	Malaria.....	1
German measles.....	16	Measles:	
Influenza.....	15	Bernalillo.....	11
Measles.....	458	Scattering.....	6
Mumps.....	48	Mumps.....	10
Ophthalmia neonatorum.....	23	Pneumonia.....	15
Pneumonia (lobar).....	47	Scarlet fever.....	10
Polioomyelitis.....	16	Septic sore throat.....	6
Scarlet fever.....	177	Smallpox.....	2
Septic sore throat.....	3	Tuberculosis:	
Tetanus.....	1	Bernalillo.....	11
Trachoma.....	1	Grant.....	28
Tuberculosis (all forms).....	161	Scattering.....	5
Typhoid fever.....	17	Typhoid fever.....	10
Whooping cough.....	169	Whooping cough.....	13
MINNESOTA.		NEW YORK.	
Smallpox.....	26	(Exclusive of New York City.)	
MISSISSIPPI.		Cerebrospinal meningitis:	
Cerebrospinal meningitis.....	2	Auburn.....	1
Diphtheria.....	18	Tarrytown.....	1
Scarlet fever.....	16	Diphtheria.....	381
Smallpox.....	24	Influenza.....	26
Typhoid fever.....	11	Lethargic encephalitis.....	1
MONTANA.		Measles.....	742
Cerebrospinal meningitis—Ehlings.....	1	Pneumonia.....	107
Diphtheria.....	2	Polioomyelitis—Livingston.....	2
Scarlet fever.....	15	Scarlet fever.....	275
Smallpox.....	16	Smallpox.....	1
Typhoid fever.....	3	Tetanus.....	1
NEBRASKA.		Typhoid fever.....	36
Cerebrospinal meningitis.....	1	Whooping cough.....	386
Chicken pox.....	52	NORTH CAROLINA.	
Diphtheria:		Cerebrospinal meningitis.....	1
Omaha.....	10	Chicken pox.....	88
Scattering.....	26	Diphtheria.....	100
Measles.....	7	Measles.....	78
Mumps.....	2	Scarlet fever.....	44
Scarlet fever.....	36	Septic sore throat.....	10
Smallpox:		Smallpox.....	19
Boyd County.....	8	Typhoid fever.....	20
Cozad.....	11	Whooping cough.....	122
Omaha.....	9	OHIO.	
Scattering.....	20	Smallpox:	
Tuberculosis.....	6	Allen County—Delphos—Epidemic.	
Typhoid fever.....	4	SOUTH DAKOTA.	
Whooping cough.....	9	Chicken pox.....	14
NEW JERSEY.		Diphtheria.....	23
Cerebrospinal meningitis.....	2	Influenza.....	3
Chicken pox.....	265	Measles.....	46
Diphtheria.....	256	Pneumonia.....	4
Influenza.....	18	Scarlet fever.....	36
Malaria.....	2	Smallpox.....	61
Measles.....	73	Tuberculosis.....	20
Pneumonia.....	144	Typhoid fever.....	2
Scarlet fever.....	145	Whooping cough.....	5
Typhoid fever.....	18	TEXAS.	
Whooping cough.....	180	Anthrax—Ballinger.....	1
		Chicken pox.....	7
		Influenza.....	29

## TEXAS—continued.

	Cases.
Plague (bubonic)—Galveston.....	1
Scarlet fever.....	42
Smallpox.....	45
Trachoma.....	5
Typhoid fever.....	17

## VERMONT.

Chicken pox.....	45
Diphtheria.....	7
Measles.....	24
Mumps.....	22
Pneumonia.....	4
Scarlet fever.....	17
Smallpox.....	7
Typhoid fever.....	3
Whooping cough.....	57

## WASHINGTON.

Chicken pox.....	80
Diphtheria.....	62
Influenza.....	3
Measles.....	39
Mumps.....	9
Pneumonia.....	3
Scarlet fever.....	61
Smallpox.....	139
Tuberculosis.....	6
Typhoid fever.....	9
Whooping cough.....	11

## WEST VIRGINIA.

Diphtheria:	
Wheeling.....	8
Scattering.....	26

## WEST VIRGINIA—continued.

	Cases.
Measles.....	8
Scarlet fever.....	19
Smallpox.....	13
Typhoid fever:	
Elkins.....	9
Scattering.....	5

## WISCONSIN.

Milwaukee:	
Cerebrospinal meningitis.....	1
Chicken pox.....	58
Diphtheria.....	100
German measles.....	1
Influenza.....	1
Measles.....	9
Scarlet fever.....	36
Smallpox.....	12
Tuberculosis.....	19
Typhoid fever.....	1
Whooping cough.....	13
Scattering:	
Cerebrospinal meningitis.....	4
Chicken pox.....	92
Diphtheria.....	85
Influenza.....	23
Measles.....	92
Poliomyelitis.....	4
Scarlet fever.....	112
Smallpox.....	178
Tuberculosis.....	9
Typhoid fever.....	3
Whooping cough.....	148

## District of Columbia and Kentucky Reports for Week Ended Nov. 27, 1920.

## DISTRICT OF COLUMBIA.

	Cases.
Chicken pox.....	24
Diphtheria.....	35
Influenza.....	1
Measles.....	11
Scarlet fever.....	22
Tuberculosis.....	19
Typhoid fever.....	6
Whooping cough.....	15

## KENTUCKY.

Cerebrospinal meningitis—Muhlenberg County.....	1
Chicken pox.....	30
Diphtheria:	
Jefferson County.....	31
Warren County.....	15
Scattering.....	60
Dysentery.....	2
Influenza.....	32
Malaria.....	1
Measles:	
Harian County.....	23
Scattering.....	3
Mumps.....	2

## KENTUCKY—continued.

	Cases.
Pneumonia.....	45
Scarlet fever:	
Hopkins County.....	8
Jefferson County.....	11
Kenton County.....	12
Scattering.....	27
Septic sore throat.....	3
Smallpox:	
Bell County.....	11
Livingston County.....	8
Ohio County.....	19
Scattering.....	16
Tonsillitis.....	8
Trachoma:	
Harian County.....	1
Pike County.....	11
Tuberculosis:	
Jefferson County.....	8
Scattering.....	5
Typhoid fever:	
Meade County.....	9
Scattering.....	25
Whooping cough.....	19

## SUMMARY OF CASES REPORTED MONTHLY BY STATES.

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
1920.										
Hawaii (October).....	1	12	19		36					15
Kansas (October).....	7	1,155	39	1	191		6	889	144	136
Maine (October).....	5	119	11		239	1	17	63	11	92
Massachusetts (November).....	6	843	67	5	1,647	1	77	638		83
North Carolina (October).....	5	923			71		4	299	60	208
Pennsylvania (September).....	14	1,162		3	576	1	30	867	16	495
Pennsylvania (October).....	14	2,167		5	1,611		27	1,981	2	960

## ANTHRAX.

Maine, Massachusetts, New Jersey, and Pennsylvania.

During October, 1920, one case of anthrax was reported in Maine and two cases were reported in Pennsylvania. During November two cases were reported in Massachusetts. During the week ended November 20, 1920, one case was reported at Lowell, Mass., and one was reported at Bloomfield, N. J.

## CEREBROSPINAL MENINGITIS.

City Reports for Week Ended Nov. 20, 1920.

The column headed "Average cases" gives the average number of cases reported during the corresponding week of the years 1915 to 1919, inclusive. In instances in which the information is not available for the full five years, the average includes from one to four years.

Place.	Average cases.	1920		Place.	Average cases.	1920	
		Cases.	Deaths.			Cases.	Deaths.
California:				New York:			
Riverside.....	0		1	Buffalo.....	0	1	
Illinois:				New York.....	2	5	4
Chicago.....	3	1		North Carolina:			
Kewanee.....	0		1	Greensboro.....	0		1
Maryland:				Ohio:			
Baltimore.....	(1)	1		Cleveland.....	(1)	1	
Michigan:				Marion.....		1	1
Detroit.....	(1)	2		Tennessee:			
Highland Park.....	1	1		Memphis.....	0	1	
Minnesota:				Nashville.....	0	1	
Duluth.....	0		1	Wisconsin:			
Missouri:				Milwaukee.....	(1)	1	1
St. Louis.....	(1)	1	1				
New Jersey:							
Bayonne.....	0	1					
Kearny.....	0	1					
Newark.....	(1)	1					

<sup>1</sup> Average less than 1.

## DENGUE.

Savannah, Ga.—Week Ended Nov. 20, 1920.

During the week ended November 20, 1920, seven cases of dengue were reported at Savannah, Ga.

**DIPHTHERIA.**

See Telegraphic weekly reports from States, p. 2975; Monthly summaries by States, p. 2979, and Weekly reports from cities, p. 2987.

**INFLUENZA.****City Reports for Week Ended Nov. 20, 1920.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			New Hampshire:		
Birmingham.....		1	Portsmouth.....	1	
California:			New Jersey:		
San Francisco.....	3	2	Jersey City.....	2	
Stockton.....		1	Kearny.....	1	
Colorado:			Newark.....	4	
Denver.....		1	Trenton.....	2	
Connecticut:			New York:		
Bridgeport.....	1		Buffalo.....		1
New Britain.....	2		Portland.....		
Waterbury.....	4		Jamestown.....	4	
District of Columbia:			New York.....	22	5
Washington.....	4		Saratoga Springs.....	6	
Georgia:			Ohio:		
Atlanta.....	7	2	Cincinnati.....	2	
Illinois:			Cleveland.....	1	
Chicago.....	20	4	Columbus.....		1
Indiana:			Mansfield.....	1	
Muncie.....	1	1	Toledo.....		1
Iowa:			Oklahoma:		
Council Bluffs.....	1		Tulsa.....	1	
Des Moines.....	1		Pennsylvania:		
Kansas:			Philadelphia.....	1	
Parsons.....	1		Rhode Island:		
Maryland:			Pawtucket.....		1
Baltimore.....	11	1	South Dakota:		
Massachusetts:			Sioux Falls.....	5	
Roxton.....	6	1	Tennessee:		
Quincy.....	1		Memphis.....		1
Winthrop.....	1	1	Texas:		
Michigan:			Dallas.....	13	3
Detroit.....	5	1	Utah:		
Flint.....	1		Salt Lake City.....	1	1
Highland Park.....	1		Virginia:		
Minnesota:			Richmond.....	1	
Munciepolis.....		1	Roanoke.....	1	
Missouri:			Wisconsin:		
Kansas City.....	1	1	Racine.....		1
St. Charles.....	2				
Springfield.....		1			

**LEPROSY.****New Orleans, La.—Week Ended Nov. 20, 1920.**

During the week ended November 20, 1920, one death from leprosy was reported at New Orleans, La.

**LETHARGIC ENCEPHALITIS.****California and Kansas.**

During October, 1920, one case of lethargic encephalitis was reported in Kansas, and during the week ended November 20, 1920, one case was reported at San Francisco, Calif.

**MALARIA.****City Reports for Week Ended Nov. 20, 1920.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			Georgia:		
Birmingham.....	1		Atlanta.....	2	1
Mobile.....		1	Louisiana:		
Arkansas:			Alexandria.....	4	
Little Rock.....	1		New Orleans.....	1	
North Little Rock.....		1	Texas:		
California:			Beaumont.....		2
Los Angeles.....	2		Dallas.....	11	
Sacramento.....	2				

**MEASLES.**

See Telegraphic weekly reports from States, p. 2975; Monthly summaries by States, p. 2979; and Weekly reports from cities, p. 2987.

**PELLAGRA.****City Reports for Week Ended Nov. 20, 1920.**

During the week ended November 20, 1920, one death from pellagra at Birmingham, Ala., one at Savannah, Ga., and one at Charleston, S. C., were reported

**PLAGUE.****Human Cases of Plague Reported.**

Place.	Period covered.	Cases.	Deaths.	Remarks.
Florida:	1920.			
Pensacola.....	May 31 to Aug. 31.....	10	4	
	Sept. 1 to Dec. 4.....	0	0	
Louisiana:	1919.			
New Orleans.....	Oct. 22 to Dec. 31.....	12	4	
	1920.			
	Jan. 1 to Apr. 30.....	0	0	
	May 1 to Aug. 31.....	7	3	
	Sept. 1 to Dec. 4.....	0	0	
Texas:				
Beaumont.....	June 19 to Aug. 20.....	14	5	
	Aug. 21 to Dec. 4.....	0	0	
Galveston.....	June 8 to Nov. 14.....	17	11	
	Nov. 15 to Dec. 4.....	0	0	
Port Arthur.....	July 7.....	1	1	From Galveston.

**Plague-Infected Rodents.**

Place.	Period covered.	Rodents found plague infected.
Florida:	1920	
Pensacola.....	June 28 to Sept. 19.....	31
	Sept. 20 to Dec. 4.....	0
Louisiana:	1919.	
New Orleans.....	November and December.....	308
	1920.	
	January to November.....	260
	Dec. 1 to 2.....	0
	Dec. 3.....	1
	Dec. 6.....	1
Texas:		
Beaumont.....	July 1 to Oct. 25.....	123
	Oct. 26 to Dec. 4.....	0
Galveston.....	June 21 to Nov. 30.....	64
	Dec. 1 to 3.....	0
	Dec. 4.....	2
Port Arthur.....	Oct. 25.....	1

## PNEUMONIA (ALL FORMS).

## City Reports for Week Ended Nov. 20, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			Massachusetts:		
Birmingham.....		4	Boston.....	25	19
Mobile.....		5	Brockton.....	1	
Montgomery.....	2		Brookline.....	1	
Arizona:			Cambridge.....	7	
Tucson.....		1	Chelsea.....		1
Arkansas:			Chicopee.....		2
Little Rock.....	2		Clinton.....	2	
North Little Rock.....		1	Danvers.....	1	
California:			Easthampton.....	1	
Alameda.....	1		Everett.....	1	
Eureka.....	1		Full River.....	3	3
Los Angeles.....	31	6	Haverhill.....	2	1
Oakland.....	1	5	Holyoke.....	1	
Pasadena.....	1	1	Leominster.....	3	
Sacramento.....	2	2	Lowell.....		4
San Bernardino.....		1	Lynn.....	2	1
San Diego.....	1	1	Malden.....		1
San Francisco.....	17	8	Medford.....		1
Stockton.....		2	Methuen.....		1
Colorado:			New Bedford.....	1	3
Colorado Springs.....	5	2	Newton.....	1	
Denver.....		14	North Adams.....		1
Connecticut:			Pittsfield.....	2	2
Bridgeport.....	4	3	Plymouth.....		1
Hartford.....	2	2	Quincy.....		1
New Britain.....	1	2	Somerville.....	3	1
New Haven.....		2	Southbridge.....	3	
Waterbury.....	4	2	Springfield.....	2	
District of Columbia:			Wakefield.....	1	
Washington.....		14	Winthrop.....	1	1
Georgia:			Worcester.....	7	5
Atlanta.....	1	7	Michigan:		
Macon.....		1	Battle Creek.....	2	1
Savannah.....		7	Detroit.....	43	24
Illinois:			Flint.....	1	4
Chicago.....	159	45	Grand Rapids.....	3	1
East St. Louis.....		6	Highland Park.....	1	
Elgin.....	1	1	Ironwood.....	1	
Evanston.....	2		Ishpeming.....	4	1
Freeport.....		1	Kalamazoo.....	1	
Galesburg.....		1	Marquette.....	2	
Jacksonville.....		3	Muskegon.....	2	
La Salle.....		1	Pontiac.....	2	1
Monmouth.....		1	Port Huron.....		1
Oak Park.....	3		Saginaw.....		1
Rockford.....		1	Minnesota:		
Rock Island.....	4	1	Duluth.....	2	1
Springfield.....	7	1	Hibbing.....	1	
Indiana:			Minneapolis.....		4
Bedford.....		1	St. Paul.....		2
Brazil.....		1	Missouri:		
Elkhart.....		1	Cape Girardeau.....	1	3
Fort Wayne.....		2	Kansas City.....	13	7
Gary.....		2	St. Charles.....	1	
Hammond.....	1	2	St. Joseph.....		3
Huntington.....		2	Springfield.....		2
Indianapolis.....		4	Montana:		
La Fayette.....		1	Butte.....		4
South Bend.....		1	Great Falls.....	4	
Terre Haute.....		2	Missoula.....		1
Iowa:			Nebraska:		
Dubuque.....	1		Lincoln.....	1	2
Mason City.....		1	Omaha.....		2
Kansas:			New Hampshire:		
Kansas City.....	9		Keene.....	1	1
Toneka.....	2		Manchester.....		2
Wichita.....		1	Nashua.....		3
Kentucky:			Portsmouth.....	1	
Louisville.....	1	11	New Jersey:		
Louisiana:			Atlantic City.....	1	2
Lake Charles.....		1	Bloomfield.....	2	
New Orleans.....		10	Elizabeth.....		4
Maine:			Gloucester.....	2	
Lewiston.....		2	Hackensack.....	2	
Maryland:			Harrison.....	1	
Baltimore.....	22	14	Hoboken.....	1	2
Cumberland.....	3		Jersey City.....	2	



## PNEUMONIA (ALL FORMS)—Continued.

## City Reports for Week Ended Nov. 20, 1920—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
New Jersey—Continued.			Ohio—Continued.		
Kearny.....	3	1	Mansfield.....		1
Montclair.....		2	Newark.....		1
Morristown.....	1	4	Piqua.....	1	
Newark.....	42	5	Toledo.....		2
Orange.....	1	1	Youngstown.....	3	3
Passaic.....	2	1	Zanesville.....		1
Paterson.....	1		Oklahoma:		
Rahway.....		3	Oklahoma City.....		3
Trenton.....	16	5	Tulsa.....	1	
New York:			Pennsylvania:		
Albany.....	4		Philadelphia.....	95	41
Binghamton.....	7	1	Rhode Island:		
Buffalo.....	27	5	Cranston.....	1	1
Cortland.....	2	1	Pawtucket.....		3
Glens Falls.....	2		Providence.....		6
Jamestown.....	2	1	South Carolina:		
Lackawanna.....	12	1	Charleston.....		3
Lockport.....	1		Spartanburg.....		1
Middletown.....	1		South Dakota:		
Mount Vernon.....	2	1	Sioux Falls.....	5	
Newburgh.....		1	Tennessee:		
New York.....	269	115	Memphis.....		6
North Tonawanda.....	1		Nashville.....	1	2
Pekskill.....		1	Texas:		
Rochester.....	8	4	Dallas.....	10	3
Rome.....	2		El Paso.....		2
Saratoga Springs.....	3	1	Galveston.....		1
Schenectady.....		1	Temple.....	1	
Syracuse.....	6	5	Waco.....		1
Troy.....	5	3	Virginia:		
White Plains.....	1	1	Alexandria.....		2
Yonkers.....	4	3	Petersburg.....		3
North Carolina:			Portsmouth.....		3
Charlotte.....		1	Richmond.....		3
Greensboro.....		2	Roanoke.....	1	
Ohio:			West Virginia:		
Akron.....	9		Wheeling.....		2
Barberton.....		1	Wisconsin:		
Cincinnati.....	2	2	Beloit.....	1	
Cleveland.....	8	12	Green Bay.....		1
Columbus.....		4	Kenosha.....		2
Dayton.....	1		Milwaukee.....	8	8
Findlay.....	1	1	Racine.....		1
Lima.....		2	Wausau.....		1

## POLIOMYELITIS (INFANTILE PARALYSIS).

## City Reports for Week Ended Nov. 20, 1920.

The column headed "Average cases" gives the average number of cases reported during the corresponding week of the years 1915 to 1919, inclusive. In instances in which the information is not available for the full five years, the average includes from one to four years.

Place	Average cases.	1920		Place.	Average cases.	1920	
		Cases.	Deaths.			Cases.	Deaths.
Illinois:				Montana:			
Alton.....	0	1		Missoula.....	0	1	
Chicago.....	1	3		New Hampshire:			
Massachusetts:				Nashua.....	0	1	
Boston.....	10	2		New York:			
Newburyport.....	0	4	1	Jamestown.....	0	1	
Newton.....	(2)	1		New York.....	1	3	3
Plymouth.....	(2)		1	North Dakota:			
Somerville.....				Fargo.....		1	
Springfield.....	1	1		Washington:			
Michigan:				Spokane.....		1	
Saginaw.....	0	1					

<sup>1</sup> Excluding 1916, an epidemic year.<sup>2</sup> Average less than 1.

## RABIES IN ANIMALS.

## Kansas City, Mo., and Tulsa, Okla.

During the week ended November 20, 1920, one case of rabies in animals was reported at Kansas City, Mo., and one was reported at Tulsa, Okla.

## RABIES IN MAN.

## Stockton, Calif.—Week Ended Nov. 20, 1920.

During the week ended November 20, 1920, one death from rabies in man was reported at Stockton, Calif.

## SCARLET FEVER.

See Telegraphic weekly reports from States, p. 2975; Monthly summaries by States, p. 2979; and Weekly reports from cities, p. 2987.

## SMALLPOX.

## City Reports for Week Ended Nov. 20, 1920.

The column headed "Average cases" gives the average number of cases reported during the corresponding week of the years 1915 to 1919, inclusive. In instances in which the information is not available for the full five years, the average includes from one to four years.

Place	Average cases.	1920		Place	Average cases.	1920	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Iowa—Continued.			
Birmingham.....	(1)	1	.....	Des Moines.....	2	1	.....
Mobile.....	0	1	.....	Dubuque.....	(1)	35	.....
California:				Marshalltown.....	5	2	.....
Alameda.....	0	1	.....	Sioux City.....	2	30	.....
Los Angeles.....	1	1	.....	Kansas:			
Riverside.....	0	3	.....	Kansas City.....	8	2	.....
Sacramento.....	0	19	.....	Parsons.....	0	1	.....
San Diego.....	0	1	.....	Louisiana:			
San Francisco.....	(1)	11	.....	New Orleans.....	(1)	22	1
Santa Cruz.....	0	4	.....	Maine:			
Stockton.....	0	3	.....	Leviston.....		1	.....
Colorado:				Waterville.....		4	.....
Denver.....	12	21	.....	Michigan:			
Pueblo.....	0	3	.....	Battle Creek.....	0	40	.....
District of Columbia:				Detroit.....	7	24	.....
Washington.....	(1)	1	.....	Grand Rapids.....	(1)	1	.....
Georgia:				Eau Claire Ste. Marie.....	0	1	.....
Atlanta.....	1	6	.....	Minnesota:			
Idaho:				Duluth.....	0	4	.....
Boise.....	(1)	4	.....	Minneapolis.....	6	94	.....
Illinois:				St. Paul.....	15	10	.....
Bloomington.....	0	3	.....	Winona.....	0	14	.....
Chicago.....	(1)	6	.....	Missouri:			
East St. Louis.....	0	2	.....	Kansas City.....	20	11	.....
Evanston.....	0	4	.....	St. Louis.....	1	10	.....
Kewanee.....		1	.....	Montana:			
Rockford.....	0	2	.....	Butte.....	4	1	.....
Springfield.....	(1)	2	.....	Missoula.....	0	2	.....
Indiana:				Nebraska:			
Bethford.....	0	7	.....	Lincoln.....	2	2	.....
Fort Wayne.....	17	2	.....	Omaha.....	15	7	.....
Hammond.....	(1)	4	.....	New York:			
Huntington.....	6	2	.....	New York.....	0	2	.....
Indianapolis.....	7	7	.....	North Carolina:			
Kokomo.....	4	1	.....	Winston-Salem.....	0	1	.....
Mishawaka.....		4	.....	North Dakota:			
South Bend.....	3	23	.....	Fargo.....	(1)	8	.....
Terre Haute.....	0	3	.....	Grand Forks.....		10	.....
Iowa:				Ohio:			
Cedar Rapids.....	0	2	.....	Akron.....	3	11	.....
Clinton.....	0	4	.....	Ashtabula.....	0	2	.....
Council Bluffs.....	(1)	2	.....	Canton.....	1	6	.....
Davenport.....	8	1	.....	Cleveland.....	8	4	.....

<sup>1</sup> Average less than 1

## SMALLPOX—Continued.

## City Reports for Week Ended Nov. 20, 1920—Continued.

Place.	Average cases.	1920		Place.	Average cases.	1920	
		Cases.	Deaths.			Cases.	Deaths.
Ohio—Continued.				Utah:			
Columbus.....	(1)	1		Salt Lake City.....	2	23	
Hamilton.....	0	13		Vermont:			
Lancaster.....	0	1		Rutland.....	0	7	
Lima.....	0	23		Virginia:			
Lorain.....	(1)	9		Roanoke.....	(1)	1	
Middletown.....	0	2		Washington:			
Steubenville.....	(1)	2		Aberdeen.....		2	
Tiffin.....	(1)	9		Bellingham.....	2	2	
Toledo.....	1	9		Seattle.....	5	34	
Oklahoma:				Spokane.....	11	13	
Muskogee.....	2	1		Tacoma.....	1	2	
Tulsa.....		1		Wisconsin:			
Oregon:				Green Bay.....	1	1	1
Portland.....	9	4		Janesville.....	0	1	
South Carolina:				La Crosse.....	(1)	12	
Charleston.....	0	9		Madison.....	0	3	
Columbia.....	0	1		Milwaukee.....	5	17	
South Dakota:				Sheboygan.....		4	
Sioux Falls.....	0	3		Superior.....	1	1	

<sup>1</sup> Average less than 1.

## TETANUS.

## City Reports for Week Ended Nov. 20, 1920.

During the week ended November 20, 1920, one fatal case of tetanus was reported at Fall River, Mass., two cases were reported at New York, N. Y., and one case was reported at Philadelphia, Pa.

## TRICHINOSIS.

## San Francisco, Calif.—Week Ended Nov. 20, 1920.

During the week ended November 20, 1920, one case of trichinosis was reported at San Francisco, Calif.

## TUBERCULOSIS.

See Telegraphic weekly reports from States, p. 2975, and Weekly reports from cities, p. 2987.

## TYPHOID FEVER.

## City Reports for Week Ended Nov. 20, 1920.

The column headed "Average cases" gives the average number of cases reported during the corresponding week of the years 1915 to 1919, inclusive. In instances in which the information is not available for the full five years, the average includes from one to four years.

Place.	Average cases.	1920		Place.	Average cases.	1920	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				California:			
Birmingham.....	(1)	3	2	Long Beach.....	(1)	2	1
Mobile.....	(1)		1	Los Angeles.....	3	1	
Arkansas:				Oakland.....	(1)	2	
Fort Smith.....	2	2		Sacramento.....	0	1	1
Hot Springs.....		1		Colorado:			
Little Rock.....	(1)	1		Denver.....	2	1	

<sup>1</sup> Average less than 1.

## TYPHOID FEVER—Continued.

## City Reports for Week Ended Nov. 20, 1920—Continued.

Place.	Average cases.	1920		Place.	Average cases.	1920	
		Cases.	Deaths.			Cases.	Deaths.
Connecticut:				New Mexico:			
Bridgeport.....	2	1		Albuquerque.....	(1)	4	
Bristol.....	0	1		New York:			
New Britain.....	0	1		Albany.....	5	2	
New Haven.....	2	5	1	Buffalo.....	2	2	
District of Columbia:				Jamestown.....	2	4	1
Washington.....	4	2	2	New York.....	27	28	2
Georgia:				Rochester.....	3	2	
Atlanta.....	2		1	Rome.....	(1)	1	
Illinois:				Schenectady.....	(1)	1	
Chicago.....	16	5	1	Syracuse.....	(1)	4	
Danville.....	(1)	4		North Carolina:			
East St. Louis.....	0	1		Raleigh.....	0		1
Kewanee.....	2	1		Winston-Salem.....	2	1	
Mattoon.....		1		North Dakota:			
Rockford.....	(1)	1		Fargo.....	0	1	
Rock Island.....	0	1		Ohio:			
Springfield.....	(1)	1	1	Akron.....	2	3	
Indiana:				Alliance.....	0	2	
Bedford.....	0	2	1	Barberton.....	0		1
Elkhart.....	0	3		Canton.....	1	2	
Fort Wayne.....	0	1		Cincinnati.....	(1)	1	1
Huntington.....	0		1	Cleveland.....	2	4	
Indianapolis.....	3	1	1	Columbus.....	1	3	
Terre Haute.....	0	1		Flint.....	0	1	
Iowa:				Lancaster.....	0		1
Cedar Rapids.....	0	2		Lima.....	5		
Kansas:				Springfield.....	2	1	
Topeka.....	1	1		Oklahoma:			
Kentucky:				Oklahoma City.....	1	2	
Louisville.....	1	2		Tulsa.....		3	
Louisiana:				Oregon:			
New Orleans.....	4	5	1	Portland.....	(1)	1	
Maine:				Pennsylvania:			
Bangor.....	0	1		Allentown.....	(1)	1	
Biddeford.....	0	1		Contesville.....	(1)	1	
Lewiston.....		1		Columbia.....	0	2	
Maryland:				Erie.....	(1)	1	
Baltimore.....	9	4		Farmville.....	0	1	
Cumberland.....	(1)	1		Mahanoy City.....	0	1	
Massachusetts:				Meadville.....	0	1	
Boston.....	3	2		Philadelphia.....	10	5	3
Brockton.....	(1)	1		Reading.....	2	1	
Cambridge.....	1	1		Warren.....	0	1	
Clinton.....	0	1		Washington.....	(1)	1	
Fall River.....	4	2		Williamsport.....	(1)	1	
Lawrence.....	(1)	2		Rhode Island:			
Lynn.....	1	1		Pawtucket.....	0	2	
Taunton.....	(1)	2		South Carolina:			
Michigan:				Charleston.....	2	2	
Battle Creek.....	0	9		Columbia.....	(1)	1	
Detroit.....	8	2	1	Tennessee:			
Flint.....	2	2		Knoxville.....	(1)	1	1
Kalamazoo.....	(1)	1		Memphis.....	2	4	
Port Huron.....	0	1		Texas:			
Saginaw.....	1	2	2	El Paso.....	1	1	
Minnesota:				Utah:			
Duluth.....	(1)	2		Salt Lake City.....	2	1	
Minneapolis.....	1	3		Vermont:			
St. Cloud.....	1	1		Rutland.....	0		1
St. Paul.....	(1)	2		Virginia:			
Missouri:				Alexandria.....	0	1	
St. Joseph.....	0	1		Lynchburg.....	(1)	1	
St. Louis.....	16	4		Petersburg.....	0	1	
Montana:				Portsmouth.....	(1)	1	
Butte.....	0	1		Richmond.....	2	2	
Great Falls.....	0	1		Roanoke.....	1	1	
Nebraska:				Washington:			
Lincoln.....	0	1		Everett.....	0	1	
Omaha.....	(1)	1		Seattle.....	2	4	
New Hampshire:				Spokane.....	0	1	
Keene.....	0	1		West Virginia:			
New Jersey:				Huntington.....	0	1	
Elizabeth.....	2	1		Wheeling.....	2	2	
Jersey City.....	1	2					
Newark.....	(1)	2					
Trenton.....	1	2	1				

1 Average less than 1.

## TYPHUS FEVER.

## Austin, Tex.

One case of typhus fever was reported at Austin, Tex., December 1, 1920.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

## City Reports for Week Ended Nov. 20, 1920.

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Aberdeen, Wash.	21,302				1					
Akron, Ohio.	93,604	37	11		2		2		2	
Alameda, Calif.	28,433	3	4	1						
Albany, N. Y.	105,632		3		8		2		2	
Albuquerque, N. Mex.	14,509	8	6		2				3	5
Alexandria, La.	16,232	3								
Alexandria, Va.	17,959	6								
Allentown, Pa.	65,109		15		19		2		1	
Alliance, Ohio.	19,581	5	2							
Alton, Ill.	23,783	5	6				1		1	1
Altoona, Pa.	59,712						1			
Amesbury, Mass.	10,200	3	2				1			
Anaconda, Mont.	10,631	3	1				11			
Ann Arbor, Mich.	15,041	10	6				1			
Appleton, Wis.	18,005		1							
Arlington, Mass.	13,073	2	4		4				1	
Asbury Park, N. J.	14,629	4								
Ashtabula, Ohio.	22,068	3	1		1					
Atchison, Kans.	16,785		1				1			
Atlanta, Ga.	196,144	54	14		2		5	1	1	8
Atlantic City, N. J.	53,515	10	1				1		1	
Attleboro, Mass.	19,776	7	1		1				1	
Auburn, Me.	16,607	3			1					
Aurora, Ill.	34,795	10	1		2		1			1
Austin, Tex.	35,612	6								2
Baltimore, Md.	694,637	193	56	4	3		16		31	22
Bangor, Me.	25,958				9		2		2	
Barberton, Ohio.	14,187	9								
Battle Creek, Mich.	30,159		8		2		3			
Bayonne, N. J.	72,204		8		2		3		4	
Beacon, N. Y.	11,674	1	8							
Beatrice, Nebr.	10,437	3								
Beaumont, Tex.	28,851	15								1
Beaver Falls, Pa.	13,749				15					
Bedford, Ind.	10,613	6								
Belleville, N. J.	12,797		3							
Bellingham, Wash.	34,332						2			
Beloit, Wis.	18,547	3							2	1
Berlin, N. H.	13,892	9							1	1
Bethlehem, Pa.	14,373		1		1		7		2	
Beverly, Mass.	22,128	6								
Biddeford, Me.	17,760		4		1		1			
Billings, Mont.	15,123	5	1		23		1			
Binghamton, N. Y.	54,834	18			89		3			
Birmingham, Ala.	189,716	56	4				4		7	8
Bloomfield, N. J.	19,013	3	1				4			1
Bloomington, Ill.	27,462	5					2			
Bloomington, Ind.	11,661	2	1				3			
Bluefield, W. Va.	16,123		5		4		3			
Boise, Idaho.	35,951	5								
Boston, Mass.	767,813	192	53	4	10		18	1	40	11
Braddock, Pa.	22,069		2		2		1			
Bradford, Pa.	14,344				1		2			
Brazil, Ind.	10,472	6					1			
Bridgeport, Conn.	124,724	26	10	1			11		3	1
Bristol, Conn.	15,318	3	1							
Brockton, Mass.	69,132	8	2		5				1	
Brookline, Mass.	35,725	9							2	
Brunswick, Ga.	10,984	4								
Buffalo, N. Y.	473,781	131	94	9	77		17		18	5
Burlington, Iowa.	25,144		2				1			

<sup>1</sup> Population Apr 15, 1910.



# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Nov. 20, 1920—Continued.

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Burlington, Vt.	21,802	3					2		2	
Butler, Pa.	28,677						12			
Butte, Mont.	44,057	20			70				1	3
Cadillac, Mich.	10,158	1							1	
Cambridge, Mass.	114,293	29	5		3		4		1	3
Canton, Ohio	62,566	13	8		5		5		2	
Cape Girardeau, Mo.	11,146	6	3							
Carbondale, Pa.	19,597		4		16		1			
Carlisle, Pa.	10,795				1					
Cedar Rapids, Iowa	38,033		1				1			
Centralia, Ill.	11,838	2					1			
Chambersburg, Pa.	12,475		6				1			
Chanute, Kans.	12,968	1								
Charleston, S. C.	61,041	26	1	1			1			1
Charleston, W. Va.	31,060		5							
Charlotte, N. C.	40,759	8	5		21		1		2	1
Chelsea, Mass.	46,405	8	4	1	16		1		5	1
Chester, Pa.	41,857		6				1		2	
Cheyenne, Wyo.	11,320	2	1				1			
Chicago, Ill.	2,547,201	576	363	18	103	2	143	3	186	49
Chicopee, Mass.	20,950	6	8						3	
Cincinnati, Ohio	414,248	88	39	1	1		24	1	9	10
Cleveland, Ohio.	682,259		68	1	6		74	4	22	12
Clinton, Iowa.	27,678						1			
Clinton, Mass.	13,075	2			53					
Coatesville, Pa.	14,998				1		9			
Coffeyville, Kans.	18,331	10	5				3			
Colorado Springs, Colo.	38,965	20	1	1	1				6	4
Columbia, S. C.	35,165		1		3					
Columbus, Ohio.	220,135	72	21	2	1		5		5	4
Concord, N. H.	22,858	2			10		2			
Connellsville, Pa.	15,876		2				1			
Corpus Christi, Tex.	10,789	3								
Cortland, N. Y.	13,321	5	1		3		1		2	
Coshocton, Ohio.	11,887		1							
Council Bluffs, Iowa.	31,838	9					5			
Covington, Ky.	59,623	13	1				6			2
Cranston, R. I.	26,773	2								
Crawfordsville, Ind.	11,443	2					1			
Cumberland, Md.	26,686	8	3				1		2	1
Dallas, Tex.	129,738	37	32	1	1		3		6	3
Danville, Ill.	32,969	4					2		2	
Danville, Va.	20,183		6							
Davenport, Iowa.	49,618		1							
Dayton, Ohio.	128,939	29	10		1		3		5	
Dedham, Mass.	10,618	1								
Denver, Colo.	268,439	75	23	2	71		4			13
Des Moines, Iowa.	104,052		7		2		10			
Detroit, Mich.	619,648	206	112	7	9		109	6	33	15
Dover, N. H.	13,276	5	1		1					
Dubois, Pa.	14,994		1							
Dubuque, Iowa.	40,096		1				3			
Duluth, Minn.	97,077	18	25	1	2		6	1	2	
Dunkirk, N. Y.	21,311	2	5	2	1					
Durham, N. C.	26,160	0	11				2		2	
East Chicago, Ind.	30,286	9						1		
East Cleveland, Ohio.	13,864									1
Easthampton, Mass.	10,656		2						1	
Easton, Pa.	30,854		1				1		1	
East Providence, R. I.	18,485		1		2		2			
East St. Louis, Ill.	77,312	18	0	2			4		1	2
Eau Claire, Wis.	18,887						2			
Elgin, Ill.	28,562	10	4							1
Elizabeth, N. J.	88,830	18	9	1			6	1	2	1
Elkhart, Ind.	22,273	8	1				7			
El Paso, Tex.	69,149	41	2				1			8
Elwood, Ind.	11,028	3	1							
Englewood, N. J.	12,603	1			1					
Erie, Pa.	76,592		31		10		18		4	
Eureka, Calif.	15,142	5					6			
Evanston, Ill.	29,304	9	6				4			

<sup>1</sup> Population Apr. 15, 1910.

# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Nov. 20, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Evansville, Ind.	76,981	32	23				32			32
Everett, Mass.	40,160	11	1				32			
Everett, Wash.	37,235		1						1	
Fairmont, W. Va.	16,111		2							
Fall River, Mass.	122,828	33	9	1	25	1	7		9	32
Fargo, N. Dak.	17,872	6			1		2			
Farrell, Pa.	10,190		2				10			
Findlay, Ohio	14,858	7							1	
Flint, Mich.	57,386	16	16				13			
Fond du Lac, Wis.	21,486		3							
Fort Scott, Kans.	10,564	9	14							
Fort Smith, Ark.	22,390	1	1				1			
Fort Wayne, Ind.	78,014	16	2		1		1		4	32
Fostoria, Ohio	10,959	5					1			
Frankfort, Ind.	10,103	1					1			
Freeport, Ill.	19,844	7	2				1			
Fremont, Nebr.	10,080	2								
Fremont, Ohio	11,034	5					3			
Galesburg, Ill.	24,629	6								
Galveston, Tex.	42,630	13	1				1			1
Gardner, Mass.	17,534	6							5	1
Gary, Ind.	56,000	7	8				2			
Geneva, N. Y.	13,915	0								
Glens Falls, N. Y.	17,160	7								
Gloucester City, N. J.	11,375						1			
Grand Forks, N. Dak.	16,342	0	10							
Grand Rapids, Mich.	132,881	32	34	1	1		7		4	
Granite City, Ill.	15,890	3					3			
Great Falls, Mont.	13,948	5	2		7				1	1
Green Bay, Wis.	30,017	8	1		1		2			
Greenfield, Mass.	12,254	2	2		1		6		3	
Greensboro, N. C.	29,171	7								1
Greensburg, Pa.	15,881						2			
Greenwich, Conn.	19,594	2	2							
Hackensack, N. J.	17,412	6	4		1		2		1	
Hamilton, Ohio	41,338	7	2				1			
Hammond, Ind.	27,016	19	9	2			6			1
Hannibal, Mo.	22,359	3	4							
Harrisburg, Pa.	73,276		5		1		7			
Harrison, N. J.	17,345	1								
Hartford, Conn.	112,831	32	14	2			8		5	1
Haverhill, Mass.	49,180	14	5	1	3		3			
Hazleton, Pa.	28,981						1			
Hibbing, Minn.	17,550		2				1			
Highland Park, Mich.	33,859	11	10		2		3			
Hoboken, N. J.	78,324	16	1		1		1			1
Holland, Mich.	13,459	0	1				1			
Holyoke, Mass.	66,503	10	2	1					1	
Hot Springs, Ark.	17,690	8	1		1					1
Huntington, Ind.	10,982	8					6			
Huntington, W. Va.	47,686	22	1				1			
Hutchinson, Kans.	21,461		4				2			
Independence, Mo.	11,994	1								
Indianapolis, Ind.	283,622	72	8	1	3		32	1	6	6
Ironwood, Mich.	15,035	3	1		3		2			
Irrington, N. J.	16,710						1		3	
Ishpeming, Mich.	12,448	0	2				1			
Ithaca, N. Y.	16,017	4	3		1				1	
Jacksonville, Ill.	15,506	12	1		1		4			3
Jamestown, N. Y.	37,431	8	4				2			
Janesville, Wis.	14,411	6								
Jefferson City, Mo.	13,712	4								1
Jersey City, N. J.	312,557		22		3		4		12	
Johnstown, Pa.	70,437		12		4		2			
Joplin, Mo.	33,400		5				3			
Kalamazoo, Mich.	50,408	10	4		1		16			
Kansas City, Kans.	102,096		15		1		3		4	
Kansas City, Mo.	305,816	92	9	2	9		14	2	4	5
Kearny, N. J.	24,325	4	3				6		1	
Keene, N. H.	10,725	5								

<sup>1</sup> Population Apr. 15, 1910.

# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Nov. 20, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Kenosha, Wis.	32,833	4	3				1			
Kewanee, Ill.	13,607	2	3		3					
Knoxville, Tenn.	59,112		8	1			4		4	4
Kokomo, Ind.	21,929	9				1		1		
Lockawanna, N. Y.	16,219	1	6		26		3		2	
La Fayette, Ind.	21,481	5							1	
Lake Charles, La.	14,930	6		1					1	
Lancaster, Ohio.	16,086	5								1
Lancaster, Pa.	51,437		13				1			
La Salle, Ill.	12,332	4					2			
Laurel, Miss.	12,313		1							
Lawrence, Kans.	13,477	1	1				1			
Lawrence, Mass.	102,923	21	3	1	3		8		4	3
Leavenworth, Kans.	19,363	3	5				1			
Lebanon, Pa.	20,947						2			
Leominster, Mass.	21,365	2							1	
Lewiston, Me.	28,661	8	2		20				3	2
Lexington, Ky.	41,997	12					1		1	2
Lima, Ohio.	37,145	13	2		1		5			3
Lincoln, Nebr.	46,957	15	2				3		1	1
Lincoln, R. I.	10,473		1							
Little Rock, Ark.	58,716		10		20		3		10	
Lockport, N. Y.	20,028	3					1		1	
Logansport, Ind.	21,338	3	1				6			
Long Beach, Calif.	29,163	13	2				1			
Lorain, Ohio.	38,266		5							
Los Angeles, Calif.	535,485	161	67	2	51		13		103	18
Louisville, Ky.	240,808	65	32	2			11		6	
Lowell, Mass.	114,366	29	9		81	1	10		7	1
Lynchburg, Va.	33,497	4	2	1						
Lynn, Mass.	104,534	20	10	1			3		5	1
McKeesport, Pa.	48,290		2							
McKees Rocks, Pa.	20,795		2		2		1		2	
Macon, Ga.	46,090	17	5				2			2
Madison, Wis.	31,315	8	2				2			1
Mahanoy City, Pa.	17,700		4				1			
Malden, Mass.	52,243	7	9				3		3	1
Manchester, Conn.	15,859	3							1	
Manchester, N. H.	79,607	23	18	1			2			1
Manitowoc, Wis.	13,931						2			
Mankato, Minn.	10,265	3					1			
Mansfield, Ohio.	23,651	5		1						1
Marinette, Wis.	14,510				1		1			
Marion, Ind.	19,923	5	3				2			
Marion, Ohio.	24,129	1					1			
Marquette, Mich.	12,555	1								
Marshalltown, Iowa.	14,519						1			
Martinsburg, W. Va.	12,184		4							
Mason City, Iowa.	14,138	11	1	1			5			
Mattoon, Ill.	12,764						1		1	
Meadville, Pa.	13,668		1							
Medford, Mass.	26,681	8	1				3		2	
Melrose, Mass.	17,724	3	1				1		1	
Memphis, Tenn.	151,877	53	31	1	2		5		7	5
Meriden, Conn.	29,431		3				9			
Methuen, Mass.	14,320	2	1		7		1			
Middletown, N. Y.	15,890		1		49					
Middletown, Ohio.	16,284	4	1				1			
Milwaukee, Wis.	445,008	111	69	5	7		27	1	22	5
Minneapolis, Minn.	373,418	87	13	3	1		23		31	7
Mishawaka, Ind.	17,083	6					3			
Missoula, Mont.	19,075	6					2			1
Mobile, Ala.	59,201	28	2							1
Monessen, Pa.	23,670						1			
Monmouth, Ill.	10,346	4								
Monroe, La.	13,658	3	6				2			
Montclair, N. J.	37,687	6	1		11					2
Montgomery, Ala.	44,699	13	4				2			
Morgantown, W. Va.	14,444	6			4					
Morristown, N. J.	13,410	11	1							

<sup>1</sup>Population Apr. 15, 1910.

# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Nov. 20, 1920—Continued.

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Moundsville, W. Va.	11,513	1								
Mount Carmel, Pa.	20,709		2							
Mount Vernon, N. Y.	37,991	12	5							
Muncie, Ind.	25,653	12	6				1		1	1
Muscatine, Iowa	17,713	5								
Muskegon, Mich.	27,434	7					5			1
Muskogee, Okla.	47,173	1	4	1			1			
Nanticoke, Pa.	23,811		5		10		2			
Nashua, N. H.	27,541	11					7			
Nashville, Tenn.	118,136	37	11				3			1
Newark, N. J.	418,789	101	38	1	9		30		39	7
Newark, Ohio.	30,317	8					2			
New Bedford, Mass.	121,622	23	9	3			2			1
New Britain, Conn.	55,385	10	10		2	1	7		5	1
New Brunswick, N. J.	25,855		14							
Newburgh, N. Y.	29,833	6	1				5		1	1
Newburyport, Mass.	15,291	3								
New Castle, Ind.	14,144		10		3		8			
New Haven, Conn.	152,275	37	15				11		3	1
New London, Conn.	21,199	6					5			
New Orleans, La.	377,010	134	15		33		2		18	16
Newport, R. I.	30,585	5	1				1			
Newton, Mass.	44,343		1		110		1		3	
New York, N. Y.	5,737,492	1,166	381	26	62	1	176	4	262	97
Niagara Falls, N. Y.	38,466		19	2	1		32		1	1
Norristown, Pa.	31,969		1				2			
North Adams, Mass.	122,019	10	1		2		1			2
Northampton, Mass.	20,006	6	1		2		2		1	
North Attleboro, Mass.	11,218	4	1				1			1
North Braddock, Pa.	15,684		3							
North Little Rock, Ark.	15,515	5					2			1
North Tonawanda, N. Y.	14,060	2	3							
Norwalk, Conn.	27,332	9	7				1			2
Norwich, Conn.	21,923	5	6				1			
Norwood, Ohio.	23,269	1			1		3			
Oakland, Calif.	206,405	39	3				5		5	3
Oak Park, Ill.	27,816	13	1		1		8			
Oil City, Pa.	20,162		7		31		8			
Oklahoma City, Okla.	97,588	25	23							2
Old Forge, Pa.	15,479		1		11					
Olean, N. Y.	16,927	3								
Omaha, Nebr.	177,777	46	14	1			4			2
Orange, Conn.	11,393	7	2							4
Orange, N. J.	33,636	6	10		1		1		1	
Oshkosh, Wis.	36,519	4					1		1	
Paducah, Ky.	25,178		5							
Parkersburg, W. Va.	21,050	8	4							
Parsons, Kans.	15,952		8				1			
Pasadena, Calif.	49,629	18	1		1				1	1
Passaic, N. J.	74,478	18	2		2		6		2	1
Pateron, N. J.	140,512	11	6							
Pawtucket, R. I.	60,666	18	2	1						
Peekskill, N. Y.	19,031	3	1		2					
Peoria, Ill.	72,184	28	9	1			16			
Perth Amboy, N. J.	42,646	9	5	1	1		2			1
Petersburg, Va.	25,817	12	6						1	4
Philadelphia, Pa.	1,735,514	443	95	9	5		115	4	59	41
Phillipsburg, N. J.	15,879	1								
Phoenixville, Pa.	11,871		3				1			
Piqua, Ohio.	14,275	1								
Pittsburgh, Pa.	583,196		49		39		64		7	
Pittsfield, Mass.	39,678	15	1		39		2		3	
Pittston, Pa.	18,975		1							
Plainfield, N. J.	24,339	7	2							
Plymouth, Mass.	14,091	4								
Pontiac, Mich.	18,006	11					10			1
Port Chester, N. Y.	16,727	3	2							
Port Huron, Mich.	18,863	8	3	1			3		1	
Portland, Me.	61,720	17			2		1			
Portland, Oreg.	308,399	49	10		11		10		2	1
Portsmouth, N. H.	11,730		1							

<sup>1</sup> Population Apr. 15, 1910.

<sup>2</sup> Pulmonary tuberculosis only.

# DIPHtheria, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Nov. 20, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Portsmouth, Va.	40,693	15	3	1	4		3		2	1
Pottstown, Pa.	16,987		2		3		2			
Pottsville, Pa.	22,717		5							
Providence, R. I.	259,895	62	26		23	1	14		1	3
Pueblo, Colo.	56,084		3	1	2					
Quincy, Ill.	36,832	7								1
Quincy, Mass.	39,622	4	6						1	
Racine, Wis.	47,465	12	25		4		11		1	2
Rahway, N. J.	10,361	7					1			
Raleigh, N. C.	20,274	8	7		28		2			1
Reading, Pa.	111,607		4				1			
Reno, Nev.	15,514	4								
Richmond, Ind.	25,080	7	2							
Richmond, Va.	158,702	39	44				11			6
Riverside, Calif.	29,496	5	1							1
Roanoke, Va.	46,282	13	8		2		6			2
Rochester, N. Y.	264,714	52	116	1			18	2	13	5
Rockford, Ill.	56,739	17	1	1			2			
Rock Island, Ill.	29,452	10					2			1
Rocky Mount, N. C.	12,674	9								
Rome, Ga.	15,607		2						2	
Rome, N. Y.	24,259		1		16					
Rutland, Vt.	15,038	4	1				3		1	
Sacramento, Calif.	68,984	17	3	1						2
Saginaw, Mich.	56,469	17	11	1	1				2	
St. Charles, Mo.	10,498	2	1				2			
St. Cloud, Minn.	12,013		2							
St. Joseph, Mo.	86,498		16	1						
St. Louis, Mo.	768,630	28	165	10	4		22		25	6
St. Paul, Minn.	252,465	50	30	3			11		8	4
Salina, Kans.	12,470	5	4				5			
Salt Lake City, Utah.	121,623	25			91		5			
San Bernardino, Calif.	17,616	13	2							3
San Diego, Calif.	56,412	29							8	4
Sandusky, Ohio.	20,226	9					1			
Sarford, Me.	11,217	0								
San Francisco, Calif.	471,623	128	11	4	4		26		23	7
Santa Barbara, Calif.	15,360	2								
Santa Cruz, Calif.	15,150	6	1	1						
Saratoga Springs, N. Y.	13,839	5			1				1	
Saugus, Mass.	10,210	5					5			
Sault Ste. Marie, Mich.	14,130	2					9	1		
Savannah, Ga.	69,250	29	5	2			2		2	
Schenectady, N. Y.	103,774	20	2		2		6			4
Scranton, Pa.	149,541		14				7		9	
Seattle, Wash.	366,445		31		1		9			
Shamokin, Pa.	21,274		10				2			
Sharon, Pa.	19,156		3		1		6			
Sheboygan, Wis.	28,907		1							
Sioux City, Iowa.	58,568		1				2			
Sioux Falls, S. Dak.	16,887	4			1		2		1	
Somerville, Mass.	88,618	20	2	1					2	1
South Bend, Ind.	70,967	8	10		2		5		1	1
Southbridge, Mass.	14,465	2					1			
Spartanburg, S. C.	21,985	7	1				1			
Spokane, Wash.	157,656		2		1		6			
Springfield, Ill.	62,623	20	2		9		22			2
Springfield, Mass.	108,668	31	3				15	2	7	4
Springfield, Mo.	41,169	19								2
Springfield, Ohio.	52,296	12	1		6		9		3	1
Steeltown, Pa.	15,759		1							
Steubenville, Ohio.	28,259	10	1				1			
Stillwater, Minn.	10,198	1								
Stockton, Calif.	36,209	13	2				1			
Sunbury, Pa.	16,661		4		1					
Superior, Wis.	47,167	13	2				1		6	2
Syracuse, N. Y.	158,559	36	18		10		14		8	3
Tacoma, Wash.	117,446		4		1					
Taunton, Mass.	36,610	13					7	1	2	2
Temple, Tex.	13,904	0	7							
Terre Haute, Ind.	67,361	13	3				4			

Population Apr. 15, 1910.



# DIPHThERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Nov. 20, 1920—Continued.

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Tiffin, Ohio.....	12,962	2								
Toledo, Ohio.....	202,010	59	43	2			11	1		1
Topeka, Kans.....	49,538	9	4		100		10		1	
Trenton, N. J.....	113,974	34	6	1			3		3	2
Trinidad, Colo.....	14,413				20		1			
Troy, N. Y.....	78,094	18	4		19		3		3	
Tucson, Ariz.....	17,324	13								4
Tulsa, Okla.....	32,507		14				2		2	
Uniontown, Pa.....	21,600		2		2		4			
Vallejo, Calif.....	13,803	1								
Vancouver, Wash.....	13,806						10			
Virginia, Minn.....	15,954		1							
Waco, Tex.....	34,015	15	2							1
Wakefield, Mass.....	12,947	5							1	1
Walla Walla, Wash.....	26,067		1				1			
Warren, Pa.....	15,083						1			
Washington, D. C.....	369,782	119	38	2	15		16		23	8
Washington, Pa.....	22,076		1		58					
Waterbury, Conn.....	89,201	16	9				1		3	
Watertown, Mass.....	15,188	2					1		1	
Waterville, Me.....	12,903						1			
Wausau, Wis.....	19,666	5								
Westfield, Mass.....	18,769	3								
West Hoboken, N. J.....	44,386	7					1			
West New York, N. J.....	19,613		9							
West Orange, N. J.....	13,964		3				2			
Wheeling, W. Va.....	43,657	22	18		4		5			3
White Plains, N. Y.....	23,331	4							2	
Wichita, Kans.....	73,597	22	18	1			12		2	1
Wilkes-Barre, Pa.....	78,334		3		18		4		1	
Wilkesburg, Pa.....	23,839				1		2			
Williamsport, Pa.....	34,123		9				11			
Wilmington, Del.....	95,369	34	3				4			2
Winona, Minn.....	18,583		1				6			
Winston-Salem, N. C.....	33,135	20	5				1		4	2
Winthrop, Mass.....	13,105	4			2		1			
Woburn, Mass.....	16,076	2								
Worcester, Mass.....	166,106	53	4		5		6		8	4
Yakima, Wash.....	22,058						1			
Yonkers, N. Y.....	103,066	15	16		2				4	3
York, Pa.....	52,770		14				6		1	
Youngstown, Ohio.....	112,282		5	1	4		21			1
Zanesville, Ohio.....	31,320	7	1				2			

<sup>1</sup> Population Apr. 15, 1910.



## FOREIGN AND INSULAR.

### JAMAICA.

#### Infectious Disease Reported Present.<sup>1</sup>

During the week ended November 6, 1920, 301 cases of alastrim or Kaffir pox were reported present in the Island of Jamaica.

### JAPAN.

#### Mortality—Taiwan Island (Formosa)—1916-1918.

The following table shows the mortality from certain causes occurring in the Island of Taiwan (Formosa), Japan, during the years 1916, 1917, and 1918. The population for these years was approximately 3,512,000, 3,563,000, and 3,582,000, respectively. About 90 per cent of the population is Chinese.

Disease.	Number of deaths.		
	1916	1917	1918
Typhoid fever.....	279	206	215
Typhus fever.....	1		
Malaria.....	11,346	9,729	8,292
Smallpox.....	19		40
Measles.....	536	352	438
Scarlet fever.....	1	3	2
Whooping cough.....	80	69	264
Diphtheria and croup.....	52	54	54
Influenza.....	367	262	6,320
Cholera.....	9	2	1
Dysentery.....	63	52	56
Plague.....	2	3	
Tuberculosis, pulmonary.....	5,009	5,431	6,533
Tubercular meningitis.....	105	85	410
Tubercular enteritis.....	1,281	1,063	1,246
Tuberculosis of other organs.....	97	101	87
Leprosy.....	45	34	37
Syphilis.....	440	535	495
Other infectious diseases.....	445	2,420	2,755
Distomiasis.....	25	14	20
Cancer.....	361	389	400
Other malignant tumors.....	22	6	36
Rheumatism.....	150	155	143
Beriberi.....	642	699	677
Glycosuria.....	29	39	41
Other irregularity of nutrition.....	526	408	401
Other general diseases of whole body.....	15	135	22
Acute and chronic alcoholism.....	2	3	1
Meningitis.....	3,101	2,627	3,143
Hemorrhage and softening of brain.....	1,429	1,507	1,200
Eclampsia other than that arising from pregnancy and childbirth.....	4,785	3,520	3,646
Other nervous diseases.....	876	817	1,046
Organic diseases of heart.....	1,079	964	1,000
Other diseases of circulatory organs.....	120	62	98
Acute bronchitis.....	3,436	2,406	3,438
Chronic bronchitis.....	2,244	3,558	4,697
Pneumonia and bronchial pneumonia.....	8,810	10,306	22,144
Other diseases of respiratory organs.....	6,625	6,647	8,032
Diseases of stomach.....	7,130	6,485	7,441

<sup>1</sup> Public Health Reports, Sept. 3, 1920, p. 2132; Sept. 24, 1920, p. 2298; Oct. 15, 1920, p. 2491; Oct. 29, 1920, p. 2603; Nov. 19, 1920, p. 2814; Dec. 3, 1920, p. 2643.

Disease.	Number of deaths.		
	1916	1917	1918
Diarrhea and enteritis.....	10,930	8,785	9,922
Diarrhea and vomiting.....	53	20	56
Ankylostomiasis.....	26	41	38
Typhilitis and iliac phlegmon.....	13	83	86
Hernia and stoppage of intestines.....	104	108	124
Hardening of the liver.....	156	182	188
Other diseases of digestive organs.....	1,148	1,386	1,298
Peritonitis, nonpuerperal.....	3,175	1,356	1,504
Nephritis.....	802	2,437	2,606
Other diseases of male genito-urinary organs.....	1,552	125	90
Diseases of female genito-urinary organs.....	301	277	273
Puerperal fever.....	286	304	366
Other diseases arising from pregnancy and childbirth.....	627	607	698
Diseases of skin, bones, and muscles.....	508	702	697
Malformation and weak constitution.....	4,086	3,874	4,061
Special diseases of infants.....	198	1,328	1,641
Senile debility.....	3,416	3,136	2,850
Suicide.....	683	655	730
Poisoning.....	45	26	42
Deaths from other external causes.....	1,314	1,578	1,294
Diagnosis not clear.....	11,421	9,091	11,521
Causes unknown.....	1		1
Total.....	102,519	97,949	124,677

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During Week Ended Dec. 10, 1920.<sup>1</sup>

### CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Antung.....	Oct. 25-31.....	1		
Changsha.....	Oct. 10-16.....	1	1	
Chungking.....	do.....			Present.
Tientsin.....	Oct. 3-9.....	15		
Chosen (Korea):				
Fusan.....	Oct. 22-28.....		24	
Seoul.....	do.....	100	68	Previous cases bacteriologically verified.
Do.....	Oct. 29-Nov. 4.....		1	July 25-Aug. 7, 1920: Deaths, 2,687. Aug. 21-Sept. 4, 1920: Deaths, 5,872.
India.....				
Madras.....	Oct. 17-23.....	2		
Rangoon.....	Oct. 10-16.....	1	1	
Japan:				
Taiwan Island (Formosa).....	June 21-30.....	6	5	
Philippine Islands:				
Provinces—				
Cagayan.....	Sept. 12-18.....	1		
Masbate.....	July 4-10.....	1	1	
Siam:				
Bangkok.....	Sept. 4-18.....	4	3	

### PLAGUE.

Algeria:				
Algiers.....	Oct. 1-31.....	1		
Brazil:				
Ceara.....	Sept. 5-25.....		4	
Chile:				
Antofagasta.....	Nov. 1-7.....	3		
China:				
Hongkong.....	Sept. 28-Oct. 23.....	3	3	
India.....				
Karachi.....	Oct. 10-16.....	3	2	
Madras Presidency.....	Oct. 10-21.....	848	554	Sept. 26-Oct. 2, 1920: Cases, 3,046; deaths, 1,998.
Rangoon.....	Oct. 3-16.....	8	8	
Mexico:				
Cerritos.....	Oct. 20-Nov. 10.....	31	17	
Peru:				
Trujillo—Salaverry.....	Oct. 18-24.....	1	1	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.****Reports Received During Week Ended Dec. 10, 1920—Continued.****SMALLPOX.**

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Pernambuco.....	Sept. 27-Oct. 17...	59	1	
Canada:				
Nova Scotia—				
Sydney.....	Nov. 7-20.....	3		
Ontario—				
Hamilton.....	Nov. 21-27.....	2		
Kingston.....	Nov. 7-13.....	5		
Ottawa.....	Nov. 14-20.....	5		
Toronto.....	Nov. 14-27.....	6		
Ceylon:				
Colombo.....	Oct. 3-9.....	8	1	
China:				
Amoy.....	Oct. 10-16.....		1	
Chuncking.....	do.....			Present.
Foochow.....	Oct. 3-16.....			Do.
Colombia:				
Santa Marta.....	Oct. 31-Nov. 13.....			Do.
Egypt:				
Alexandria.....	Oct. 28-Nov. 4.....	1		
France:				
Rouen.....	Oct. 31-Nov. 6.....	1		
Great Britain:				
Glasgow.....	do.....	3	2	
India:				
Bombay.....	Sept. 26-Oct. 2.....	2		July 25-31, 1920: Deaths, 586.
Madras.....	Oct. 10-23.....	7	3	Aug. 1-7, 1920: Deaths, 442.
				Aug. 15-Sept. 4, 1920: Deaths, 733.
Italy:				
Catania.....	Oct. 25-31.....	1		In Province, 50 cases.
Messina.....				Oct. 26-Nov. 1, 1920: Cases, 2 (in Province).
Naples.....	Oct. 18-Nov. 7.....	8	2	
Palermo.....	Oct. 1-28.....	236	99	
Japan:				
Taiwan Island (Formosa).....	June 1-30.....	5	5	
Do.....	July 1-10.....	5	3	
Java:				
West Java.....				Sept. 24-30, 1920: Cases, 11.
Batavia.....	Sept. 24-30.....	4	2	deaths, 4.
Madeira:				
Funchal.....	Oct. 21-30.....		2	
Mexico:				
Chihuahua.....	Nov. 1-21.....		3	
San Luis Potosi.....	Oct. 31-Nov. 6.....		1	
Portugal:				
Lisbon.....	Oct. 24-30.....		7	
Russia:				
Riga.....	Oct. 7-15.....	1		
Spain:				
Barcelona.....	Nov. 1-10.....		2	
Valencia.....	Nov. 7-13.....	1		
Vigo.....	Oct. 10-16.....		1	
Tunis:				
Tunis.....	Nov. 1-7.....		3	
Union of South Africa:				
Johannesburg.....	Aug. 1-31.....	4		

**TYPHUS FEVER.**

China:				
Antung.....	Oct. 18-24.....	9	2	
Egypt:				
Alexandria.....	Oct. 22-28.....	4	1	
Cairo.....	Aug. 20-Sept. 2.....	25	20	
Port Said.....	Aug. 20-26.....	1		
Great Britain:				
Dublin.....	Oct. 24-Nov. 13.....	12	1	
Italy:				
Trieste.....	Oct. 31-Nov. 6.....	22	1	
Japan:				
Nagasaki.....	Oct. 18-31.....	5	1	
Mexico:				
San Luis Potosi.....	Nov. 14-20.....			Present.
Russia:				
Riga.....	Oct. 1-23.....	41		
Turkey:				
Constantinople.....	Oct. 18-Nov. 6.....	7	1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

## **Reports Received During Week Ended Dec. 10, 1920—Continued.**

### **YELLOW FEVER.**

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico:				
Vera Cruz.....	Nov. 22-28.....	8	5	
Yucatan (State)— Izmal.....	Oct. 10-16.....		1	

## **Reports Received from June 23 to Dec. 3, 1920.**

### **CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
Brasil:				
Rio de Janeiro.....	June 27-July 3.....		1	
China:				
Amoy.....	June 20-Aug. 11.....		12	
Annung.....	Aug. 9-15.....	1	1	
Canton.....	July 1-Aug. 31.....	5	4	
Changsha.....	Aug. 22-Sept. 18.....	137	50	Aug. 15-21: Present. Oct. 3-9: Present.
Chungking.....	May 16-24.....		1,319	Sept. 18: Present. Oct. 3-9: Present and in vicinity.
Do.....	June 6-Sept. 11.....		5,322	Present.
Dairen.....	Sept. 29.....	4	1	
Foochow.....	July 11-24.....			
Hankow.....	July 4-17.....	12	5	
Harbin.....				Year 1919: Cases, 603. On Eastern Chinese R. R. line. At other stations, same line, 190 cases.
Hongkong.....	Aug. 8-14.....	1	1	Several cases reported at Nanking University, Aug. 30. Reported prevalent among Chinese, Aug. 30.
Nanking.....	Sept. 12-25.....		4	Aug. 1-Oct. 7, 1920: Cases, 21,535; deaths, 12,549.
Shanghai.....	Aug. 2-29.....	1	6	
Chosen (Korea):				
Chemulpo.....	Aug. 1-Oct. 7.....	24	21	
Chinampo.....	Aug. 1-26.....	34	23	
Fusan.....	Aug. 1-Oct. 7.....	684	493	
Gensan.....	Aug. 27-Sept. 2.....	1		
Mokpo.....	Aug. 1-Sept. 30.....	28	18	
Seoul.....	Aug. 1-Oct. 22.....	1,032	792	
Galicia:				
Buczacz.....	Oct. 18.....			Present.
Greece:				
Patras.....	July 26-Aug. 1.....			Present in surrounding country.
Zante.....	Aug. 2-8.....			Present.
India:				
Bombay.....	May 2-June 26.....	85	36	Apr. 11-May 22, 1920: Deaths, 7,440. May 30-June 26, 1920: Deaths, 3,710. June 27-July 10, 1920: Deaths, 1,711.
Do.....	June 27-Sept. 18.....	105	68	
Calcutta.....	May 2-June 24.....	439	423	
Do.....	July 18-Oct. 2.....	188	181	
Madras.....	May 2-June 26.....	20	13	
Do.....	July 11-Oct. 9.....	13	2	
Rangoon.....	June 27-Sept. 18.....	22	16	
Indo-China:				
Salgon.....	Apr. 26-June 13.....	13	94	1920: Jan.—Cases, 40; deaths, 24. Feb.—Cases, 25; deaths, 15. Mar.—Cases, 52; deaths, 30. Apr.—Cases, 204; deaths, 99. May—Cases, 328; deaths, 184. June—Cases, 292; deaths, 201.
Do.....	July 26-Sept. 5.....	9	5	
Japan:				
Kobe.....	June 14-27.....	36	24	Kobe, June 6-13, 34 cases. Moji, June 6-12, 10 cases. Kochi, June 6-12, 1 case. Hiroshima, June 6-12, 6 cases.
Do.....	June 28-Oct. 17.....	400	223	Present.
Nagasaki.....	June 21-27.....	7		
Do.....	June 28-July 18.....	34	13	
Osaka.....	June 8.....			
Taiwan Island.....	May 22-June 20.....	60	33	
Do.....	July 11-Oct. 10.....	1,414	533	
Java:				
West Java— Batavia.....	Apr. 30-June 3.....	6	2	June 4-17: Present.
Do.....	June 25-Aug. 12.....	3		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 26 to Dec. 3, 1920—Continued.**

## **CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Philippine Islands.....				May 9-June 26, 1920: Cases, 16; deaths, 12. June 27-July 17, 1920: Cases, 63; deaths, 31. July 25-31: Cases, 57; deaths, 48.
Manila.....	May 9-June 26.....	5	1	
Do.....	June 27-Sept. 25.....	5		
Provinces—				
Albay.....	May 9-15.....	2	1	
Batangas.....	June 27-July 3.....	1		
Bohol.....	do.....	1	1	
Cagayan.....	May 9-June 26.....	11	19	
Do.....	June 27-Aug. 28.....	52	21	
Cavite.....	Sept. 5-11.....	1	1	
Iloilo.....	June 27-July 17.....	3		
Isabela.....	July 11-Sept. 4.....	25	26	
Laguna.....	July 4-10.....	8		
Misamis.....	July 11-17.....	4	2	
Nueva Viscaya.....	July 25-31.....	49	42	
Pangasinan.....	July 4-Aug. 7.....	7	5	
Tarlac.....	Sept. 12-18.....	1	1	
Poland:				
Warsaw.....	Oct. 28.....	1	1	Case occurred in employee on river boat plying between Warsaw and Danzig.
Russia.....				Reported prevalent in southern Russia, June 4, 1920.
Grodno.....	Oct. 18.....			Present.
Sebastopol (district).....	June 20.....			Reported increasing.
Simferopol.....				Jan.-June, 1920: Cases, 1,262; deaths, 584. South Russia, Government of Tauride.
Vilna.....	Sept. 28.....	40		Oct. 18: Present.
Siam:				
Bangkok.....	Apr. 25-June 26.....	542	343	
Do.....	June 26-Sept. 3.....	61	26	
Straits Settlements:				
Singapore.....	July 18-Oct. 2.....	26	24	
Sumatra:				
Medan.....	Aug. 20-Sept. 3.....	1		On local steamship. From Singapore.
Turkey:				
Amassia.....	Dec. 24.....	1		Asiatic Turkey.
Kaiseri.....	Dec. 22.....	1		Do.
Karassi.....	Jan. 3.....	1		Do.
Mamuret-ul-Aziz.....	Dec. 31.....	1	1	Do.
Panderma.....	Dec.-Jan.....	16	6	
Rodosto.....	Dec. 29.....	1		European Turkey.
Smyrna.....	Dec. 22.....	3	2	Asiatic Turkey.
On vessel:				
S. S. Kekettient.....	Aug. 2.....	1		U. S. S.: At Shanghai.
Steamship (local).....	Aug. 20-Sept. 3.....	1	1	At Medan, island of Sumatra. From Singapore.

## **PLAGUE.**

Algeria:				
Algiers.....				Sept. 1-30, 1920: Cases, 3; deaths, 1.
Azores:				
St. Michaels.....	Oct. 4-20.....	35	12	
Do.....	Nov. 10-16.....	25	8	Oct. 4, 1920: 5 suspect cases isolated vicinity of Ponta Delgada. Oct. 1-31, 1920: Cases, 76; deaths, 27. To Nov. 16: Cases, 110; deaths, 38.
Ponta Delgada.....	Oct. 1-26.....	2		
Brazil:				
Bahia.....	Apr. 25-May 22.....	10	10	
Do.....	June 27-Oct. 28.....	12	6	
Pernambuco.....	May 3-9.....	1	1	
Do.....	June 28-Aug. 15.....	32	16	
Porto Alegre.....	June 27-Aug. 21.....		2	
British East Africa:				
Kisumu.....	Apr. 25-June 26.....	14	12	Apr. 1-30, 1920: Cases, 22; deaths, 9.
Do.....	July 11-Sept. 4.....	10	5	Present.
Mombasa.....	Apr. 25-June 26.....	104	39	
Do.....	June 27-Aug. 28.....	113	72	
Nairobi.....	Apr. 25-June 10.....	14	8	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 26 to Dec. 3, 1920—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo.....	May 25-June 12....	7	2	
Do.....	June 27-Oct. 16....	45	37	
Chile.....				Mar. 1-May 31, 1920: Cases, 15; deaths, 2. Plague reported in Departments of Tacna and Tarata.
Antofagasta.....	May 17-June 20....	5		Mar. 1-May 31, 1920: Cases, 7; deaths, 1.
Do.....	July 5-Oct. 9.....	3		
Iquique.....	Mar. 1-May 31....	8	1	
China:				
Amoy.....	June 20-Sept. 18....		8	
Hongkong.....	Apr. 4-June 26....	90	70	
Do.....	June 27-Aug. 21....	26	23	
Ecuador:				
Guayaquil.....	Aug. 16-Sept. 30..	9	1	Oct. 16-31, 1920: Cases, 3; deaths, 2.
Egypt.....				Jan. 1-Oct. 14, 1920: Cases, 430; deaths, 251.
Cities—				
Alexandria.....	June 18-Oct. 9.....	13	7	
Port Said.....	Aug. 2-Sept. 26....	3		
Suez.....	May 13-June 8.....	12	6	3 cases pneumonic.
Do.....	July 3-Aug. 4.....	4	3	
Provinces—				
Assiout.....	May 15-June 5.....	7	4	
Do.....	July 2-Sept. 13....	7	1	
Beni-Souef.....	July 7-10.....	2	1	
Fayoum.....	June 5.....	1		
Garbich.....	Do.....	1		
Do.....	July 1-Oct. 11....	21	17	
Girgeh.....	Sept. 22.....	1	1	Pneumonic.
Kench.....	May 18.....	1		
Marut.....	May 18-June 8.....	19	22	
Do.....	July 3-9.....	1	2	
Minieh.....	May 15.....	2	1	Septicemic.
Do.....	July 13.....	1		
Fiume.....	Sept. 21.....	4	2	
Great Britain:				
Liverpool.....	June 20-26.....	1	1	
Greece:				
Athens.....	Aug. 19-Oct. 14....	3	2	
Chios.....	Oct. 14.....	1		
Dante.....	July 22.....	2		
Kavala.....	July 5-Oct. 3.....	4		
Nauplia.....	Aug. 21.....	2		Approximately 20 cases Sept. 9.
Piræus.....	June 29-Sept. 20....	12	1	
Saloniki.....	Sept. 25-Oct. 8.....	4		
India.....				Apr. 18-June 26, 1920: Cases, 12,476; deaths, 9,961. June 27-Sept. 25, 1920: Cases, 29,743; deaths, 22,604.
Bombay.....	Apr. 18-June 26....	170	135	
Do.....	June 27-Oct. 25....	59	46	
Calcutta.....	May 2-June 12....	26	19	
Karachi.....	May 9-Oct. 9.....	79	72	
Madras Presidency.....	Do.....	8,017	5,731	
Rangoon.....	Apr. 25-June 26....	120		
Do.....	June 27-Sept. 25....	243	202	
Indo-China.....				Jan. 1-31, 1920: Cases, 42; deaths, 40. Feb. 1-29, 1920: Cases, 41; deaths, 36. Mar. 1-31, 1920: Cases, 79; deaths, 70. Apr. 1-30, 1920: Cases, 69; deaths, 63. May 1-31, 1920: Cases, 87; deaths, 75. June 1-30, 1920: Cases, 72; deaths, 63.
Saigon.....	May 10-June 13....	9	2	
Do.....	July 26-Aug. 15....	5	4	
Italy:				
Catania.....	June 22-July 3.....	3	2	
Java:				Apr. 23-May 5, 1920: Cases, 7; deaths, 7. Apr. 15-June 16, 1920: Cases, 8; deaths, 8. Aug. 5-25, 1920: Cases, 4; deaths, 4. Surabaya Residency.
East Java.....				
West Java.....				
Batavia.....	July 22-Sept. 23....	16	16	
Mesopotamia:				
Bagdad.....	June 1-30.....	6	3	
Do.....	Sept. 1-30.....	1		



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 26 to Dec. 3, 1920—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico:				
Cerritos.....	Nov. 13.....	15		State of San Luis Potosi. Present in vicinity. May 29-July 14, 1920: Cases, 49; deaths, 29. Corrected statement: From outbreak in May to July 29, 1920—cases, 58; deaths, 36. Nov. 8-14, 1920: Two plague-infected rodents found. Mar. 1-31, 1920: Cases, 46; deaths, 29. Apr. 1-30, 1920: Cases, 36; deaths, 13. In coastal departments.
Tampico.....	July 26-Sept. 27.....	4	3	
Vera Cruz.....	June 14-20.....	11	1	
Do.....	July 18-24.....	2	2	
Peru:				
Callao.....	Mar. 1-Apr. 30.....	15	7	
Do.....	Aug. 1-31.....	1		
Lima (city).....	Mar. 1-31.....	5	3	
Do.....	Apr. 1-30.....	4	4	
Lima (country).....	Mar. 1-31.....	1	1	
Do.....	Apr. 1-30.....	1		
Mollendo.....	Mar. 1-31.....	13	9	
Paita.....	do.....	5	2	
Do.....	Apr. 1-30.....	2		
Salaverry.....	Mar. 1-31.....	4	3	
Do.....	Apr. 1-30.....	1		
San Pedro.....	do.....	6	1	
Trujillo-Salaverry.....	May 31-June 29.....	3	2	
Do.....	Aug. 30-Oct. 25.....	6	13	
Russia:				
Batum.....	Sept. 28.....			Prevalent.
Siam:				
Bangkok.....	Apr. 25-June 5.....	8	5	May 16-22, 1920: Cases, 2 deaths, 3.
Do.....	June 28-Aug. 28.....	6	3	
Straits Settlements:				
Singapore.....	Apr. 25-June 19.....	14	13	
Do.....	July 11-Aug. 7.....	3	3	
Syria:				
Beirut.....	June 30.....			Present.
Turkey:				
Constantinople.....	July 25-Aug. 21.....	7	6	
Uruguay:				
Montevideo.....	June 1-30.....	1	1	

## **SMALLPOX.**

Algeria:				
Departments—				
Algiers.....	May 11-Aug. 31.....	51		City of Algiers, Apr. 1-30, 1920: 1 case. July 1-Aug. 31, 1920: Cases, 4; deaths, 2. May 30-June 26, 1920: Cases, 27. June 27-July 28, 1920: Cases, 35.
Constantine.....	June 1-Aug. 31.....	18		
Oran.....	May 11-Aug. 31.....	168		
Austria:				
Graz.....	July 11-24.....	5		From Madeira.
Vienna.....	May 30-June 26.....	1		
Do.....	July 11-28.....	1		
Azores:				
Ponta Delgada.....	July 17-Aug. 20.....	7		
St. Michaels.....	Aug. 21-27.....	1		
Bolivia:				
La Paz.....	May 2-June 30.....	10	8	
Do.....	July 1-Sept. 30.....	18	8	
Brazil:				
Bahia.....	Apr. 25-June 26.....	5	5	Mar. 1-31, 1920: Cases, 107. Apr. 1-30, 1920: Cases, 69. Reported by native inspectors.
Do.....	June 27-Oct. 2.....	21	2	
Pernambuco.....	Mar. 29-June 27.....	114	3	
Do.....	June 30-Sept. 19.....	210	4	
Rio de Janeiro.....	Apr. 11-June 26.....	431	6	
Do.....	June 27-Sept. 18.....	92	22	
Santos.....	Mar. 24-25.....	1		
Do.....	July 25-Aug. 15.....		8	
Do.....	June 21-27.....		1	
Sao Paulo.....	June 27-Aug. 8.....		2	
Do.....	May 2-22.....	2	1	
Do.....	July 11-17.....	3		
Nairobi.....	May 23-June 26.....	11	1	
Do.....	Aug. 1-21.....	5		
Bulgaria:				
Sofia.....	July 11-17.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 26 to Dec. 3, 1920—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Canada:				
Alberta—				
Calgary.....	June 3-9.....	1		
Do.....	July 4-Oct. 9.....	6		
British Columbia—				
Vancouver.....	May 16-Aug. 28.....	4		
Manitoba—				
Winnipeg.....	May 29-June 5.....	3		
Do.....	Aug. 8-21.....	2		
New Brunswick—				
Bonaventura and Gaspé Counties	Aug. 1-Oct. 31.....	2		
Carleton County.....	Sept. 19-25.....	1		
Gloucester County.....	May 31-June 26.....	5		
Do.....	Sept. 19-Oct. 9.....	3		
Madawaska County.....	Oct. 31-Nov. 6.....	1		
Queens County.....	July 4-Aug. 21.....	7		
Restigouche County.....				Sept. 26-Nov. 6, 1920: Cases, 4.
Campbellton.....	July 1-31.....	7		
Nova Scotia—				
Halifax.....	do.....	2		
Sydney.....	May 31-June 26.....	2		
Ontario—				
Cornwall.....	June 25-30.....	2		
Fort William and Port Arthur.....	July 11-Oct. 2.....	4		
Hamilton.....	June 13-Nov. 20.....	13		
Kingston.....	May 31-June 19.....	4		
Do.....	Oct. 31-Nov. 6.....	6		
Montreal.....	Oct. 24-30.....	1		
North Bay.....	June 23-2.....	1		
Do.....	July 11-Oct. 23.....	8		
Ottawa.....	June 6-26.....	32		
Do.....	June 27-Nov. 13.....	187		
Peterborough.....	Apr. 18-July 31.....	33	1	
Prescott.....	July 11-17.....	1		
Do.....	Aug. 1-14.....			Present at Cardinal and Brockville.
Sault Ste. Marie.....	Oct. 24-30.....	1		
Toronto.....	June 6-19.....	13		
Do.....	June 26-Nov. 13.....	34		
Windsor.....	Aug. 22-Sept. 11.....	5		
Prince Edward Island—				
Charlottetown.....	Aug. 12-Oct. 13.....	2		
Quebec—				
Montreal.....	June 13-19.....	1		
Do.....	July 4-Aug. 7.....	4		
Quebec.....	June 27-Oct. 2.....	9		
Saskatchewan—				
Moose Jaw.....	June 26-30.....	6		
Do.....	July 25-Sept. 25.....	3		
Regina.....	June 2-30.....	1		
Do.....	Oct. 3-30.....	5		
Saskatoon.....	Sept. 5-Nov. 6.....	9		
Ceylon:				
Colombo.....	May 9-June 5.....	2		
Do.....	Aug. 29-Oct. 16.....	41	6	
Chile:				
Antofagasta.....	May 17-23.....			1 case in interior.
China:				
Amoy.....	May 2-Oct. 9.....	4	19	
Antung.....	May 9-June 13.....	3	3	
Do.....	June 21-27.....	1		
Canton.....	Sept. 1-30.....			Present.
Chungking.....	May 2-June 9.....			Do.
Do.....	July 11-Oct. 9.....			Do.
Dairen.....	Sept. 28-Oct. 4.....	1		
Foochow.....	May 9-29.....			Do.
Do.....	July 26-Oct. 2.....			Do.
Hankow.....	June 20-26.....	2		
Harbin.....	Sept. 27-Oct. 3.....	1		
Hongkong.....	Apr. 4-June.....	19	15	Year 1919: Cases, 79. On Eastern Chinese R. R. line. At other stations, 109 cases.
Do.....	June 27-July 17.....	2	2	
Mukden.....	July 19-Oct. 9.....			Present.
Nanking.....	May 9-June 5.....			Do.
Do.....	July 4-Oct. 16.....			Do.
Tientsin.....	May 25-31.....	2		
Do.....	June 16-29.....	2		
Tsinanfu.....	May 9-13.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 26 to Dec. 3, 1920—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Chosen (Korea):</b>				
Chemulpo.....	Mar. 1-June 30.....	69	40	
Do.....	July 1-31.....	18	8	
Fusan.....	Mar. 1-June 30.....	24	6	
Do.....	July 1-31.....	1	1	
Seoul.....	Mar. 1-June 30.....	354	86	
Do.....	July 1-31.....	15	6	
<b>Colombia:</b>				
Barranquilla.....	May 13-July 3.....			Epidemic.
Santa Marta.....	May 31-Oct. 16.....			Present.
<b>Cuba:</b>				
Antilla.....	Aug. 24-Nov. 15.....	5		
Habana.....	July 4.....	1		From steamship Frank Hennis, from Jamaica. Arrived Santiago June 30, 1920.
Matanzas.....	Aug. 15-21.....	1	1	In vicinity, at Aguacate, Aug. 1-7, 1920: Cases, 12.
<b>Cyprus.....</b>				August, 1919: Cases, 242; deaths, 51.
<b>Czechoslovakia.</b>				May 23-June 26, 1920: Cases, 345; deaths, 36.
Moravia.....	Feb. 1-2.....	68		
Danzig.....	June 20-July 17.....	9	2	
<b>Ecuador:</b>				
Guayaquil.....	Oct. 1-31.....	6	1	
<b>Egypt:</b>				
Alexandria.....	May 14-June 29.....	53	19	
Do.....	June 25-Sept. 30.....	13	4	
Cairo.....	Apr. 2-June 24.....	62	23	
Do.....	July 2-Aug. 19.....	5		
Port Said.....	Apr. 2-June 24.....	22	8	
Do.....	July 2-15.....	2	1	
<b>France:</b>				
Brest.....	May 15-31.....	1		
Cette.....	June 24-30.....		1	
Nice.....	June 1-30.....		1	
Paris.....	May 1-10.....	3		
<b>Germany:</b>				
Berlin.....	July 26-Sept. 4.....	1		Feb. 22-June 12, 1920: Cases, 720. July 11-Sept. 4, 1920: Cases, 81; deaths, 6. Additional cases, May 26-July 17, 1920, 66; deaths, 2.
<b>Great Britain:</b>				
Edinburgh.....	Aug. 29-Sept. 4.....	7	1	
Glasgow.....	May 25-June 26.....	136	22	
Do.....	July 4-Oct. 30.....	178	49	
Liverpool.....	July 18-Sept. 11.....	2		
London.....	June 13-July 19.....	11		
Manchester.....	Aug. 22-28.....	5		Oct. 21-30, 1920: Cases, 50. At Middletown, 6 miles distant.
<b>Greece:</b>				
Saloniki.....	May 31-June 27.....	4	1	
Do.....	July 25-Aug. 15.....	1	1	
<b>Italy:</b>				
Jacmel.....	Nov. 6.....	1		Nov. 6, 1920: Approximately 35 cases.
Port au Prince.....	Sept. 22-Nov. 7.....	50		In vicinity.
<b>India:</b>				
Bombay.....	Apr. 26-June 26.....	103	45	Apr. 11-May 22, 1920: Deaths, 7,743. May 30-June 26, 1920: Deaths, 3,861.
Do.....	June 27-Sept. 4.....	49	11	May 9-15, 1920: Cases, 26; deaths, 11.
Calcutta.....	May 2-June 12.....	101	93	
Do.....	July 18-Sept. 18.....	9	8	
Karachi.....	May 9-June 26.....	15	12	
Do.....	June 27-July 10.....	7	4	
Madras.....	May 9-June 26.....	27	15	
Do.....	June 27-Oct. 9.....	46	19	
Rangoon.....	Apr. 25-June 26.....	35	11	July 1-31, 1920: Cases, 22; deaths, 4.
Do.....	Aug. 8-Oct. 9.....	7	2	
<b>Indo-China:</b>				
Saigon.....	May 19-June 13.....	12	3	Jan. 1-31, 1920: Cases, 410; deaths, 101. Feb. 1-29, 1920: Cases, 625; deaths, 119. Mar. 1-31, 1920: Cases, 782; deaths, 111. Apr. 1-30, 1920: Cases, 312; deaths, 25. May 1-31, 1920: Cases, 428; deaths, 61. June 1-30, 1920: Cases, 318; deaths, 220.
Do.....	Aug. 3-Sept. 5.....	1	1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 26 to Dec. 3, 1920—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Italy:</b>				
Catania.....	July 12-Oct. 3....	91	.....	City and Province, Sept. 18-26, 69 cases in district.
Genoa.....	May 17-23.....	12	.....	In Province.
Do.....	June 14-27.....	20	.....	
Do.....	June 28-July 4.....	3	.....	
Messina.....	May 10-June 27.....	7	1	Province, May 10-June 27: Cases, 188; deaths, 27.
Do.....	June 28-Oct. 3....	14	3	Province: Cases, 35; deaths, 3.
Milan.....	Mar. 1-May 31....	3	5	
Naples.....	May 23-June 20....	7	3	
Palermo.....	May 11-Sept. 30....	166	29	
Trieste.....	Sept. 25-Oct. 2....	16	5	
Turin.....	June 28-Sept. 12....	2	.....	
<b>Japan:</b>				
Kobe.....	May 9-June 27.....	10	5	
Do.....	June 28-July 18....	7	2	
Taiwan Island.....	May 1-June 20.....	40	11	
Do.....	June 21-July 20....	14	8	
Tokyo.....	Apr. 21-May 10....	5	4	
<b>Java:</b>				
East Java— Surabaya.....	Sept. 5-11.....	1	.....	
West Java.....	Apr. 16-June 17....	91	26	Apr. 16-June 24, 1920: Cases, 56; deaths, 10. June 25-Sept. 23, 1920: Cases, 115; deaths, 28.
Batavia.....	July 9-Sept. 23....	11	5	Feb. 1-June 23, 1920: Cases, 2,513; deaths, 561.
<b>Jugo-Slavia:</b>				
<b>Liberia:</b>				
Monrovia.....	Nov. 13.....	.....	.....	Present.
<b>Madeira:</b>				
Funchal.....	June 20-26.....	.....	2	
Do.....	July 18-Nov. 6.....	1	3	
<b>Malta:</b>				
Manchuria:	May 1-June 30.....	.....	3	
Mukden.....	May 2-8.....	.....	.....	
<b>Mesopotamia:</b>				
Bagdad.....	July 1-31.....	1	.....	
<b>Mexico:</b>				
Chihuahua.....	Nov. 8-14.....	1	.....	
Ciudad Juarez.....	Aug. 2-8.....	1	.....	
Guadaluajara.....	May 1-31.....	1	.....	
Do.....	July 1-Oct. 31....	4	1	
Laredo.....	July 30.....	2	.....	
Mazatlan.....	May 19-25.....	.....	1	
Salina Cruz.....	June 1-30.....	5	3	
Do.....	Aug. 1-31.....	1	1	
San Luis Potosi.....	May 21-June 6.....	.....	1	
Do.....	June 28-Oct. 30....	.....	12	
Tampico.....	July 1-31.....	.....	5	
<b>Newfoundland:</b>				
Broad Cove.....	Sept. 4-10.....	1	.....	
Ladle Cove.....	Sept. 11-17.....	6	.....	
St. John's.....	June 5-11.....	3	.....	Reported at 2 other localities.
Shoal Harbor.....	July 10-16.....	7	.....	July 3-16: Present at 4 localities.
<b>New Zealand:</b>				
Dunedin.....	Aug. 10-Sept. 20....	15	.....	
<b>Persia:</b>				
Teheran.....	June 6.....	.....	.....	Present.
<b>Poland:</b>				
Minsk District.....	Jan. 1-31.....	1,052	228	Jan. 1-31, 1920: Cases, 1,895; deaths, 301.
<b>Porto Rico:</b>				
Caguas.....	Aug. 9-15.....	1	.....	
<b>Portugal:</b>				
Lisbon.....	May 16-June 28....	.....	8	
Do.....	June 27-Oct. 16....	.....	26	
Oporto.....	Oct. 31-Nov. 6.....	1	.....	
<b>Portuguese East Africa:</b>				
Inhambane.....	Sept. 12-18.....	1	.....	
Lourenco Marques.....	Sept. 12-25.....	6	.....	June 1-Aug. 31, 1920: Deaths, 1.
<b>Russia:</b>				
Riga.....	Aug. 1-Sept. 23....	3	.....	May, 1920: Cases, 5. June, 1920: Cases, 7.
Vladivostok.....	Jan. 1-June 30....	252	78	
Do.....	July 1-31.....	2	.....	
<b>Sierra Leone:</b>				
Baktau.....	Sept. 1-30.....	2	.....	
Freetown.....	do.....	3	.....	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 26 to Dec. 3, 1920—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Spain:				
Barcelona.....	May 19-June 12.....		4	
Do.....	June 18-Oct. 27.....		21	
Corrunna.....	July 16-Oct. 2.....		2	
Gijon.....				July-Sept., 1920: Cases, 17.
Malaga.....				Aug. 1-Sept. 30, 1920: Deaths, 9.
Orense, Province.....	Sept. 6.....			Present.
Valencia.....	May 23-June 26.....	15	3	
Do.....	July 4-Oct. 30.....	12	3	
Vigo.....	May 31-June 26.....		4	
Do.....	July 18-Oct. 2.....		10	
Straits Settlements:				
Singapore.....	May 16-22.....	1		Received out of date.
Sweden:				
Stockholm.....	Sept. 19-Oct. 9.....	4		
Switzerland:				
Geneva.....	May 9-15.....	7		
Syria:				
Aleppo.....	Aug. 29-Sept. 4.....			In city and in Armenian orphanage.
Tunis:				
Tunis.....	May 25-June 27.....	6	5	
Do.....	June 28-Oct. 21.....	42	18	
Turkey:				
Constantinople.....	May 16-June 19.....	7		
Do.....	June 20-Oct. 16.....	13		
Union of South Africa:				
East London.....	Sept. 19-25.....	1		
Johannesburg.....	May 1-31.....	23		
* Do.....	July 1-31.....	15		
On vessels:				
S. S. Bradford.....	Nov. 4.....	1		At Vancouver. From Talara, Peru, via ports in Chile, Mexico, and Peru. Left Talara about 21 days previous to arrival at Vancouver.
S. S. Henry R. Mallory.....	Oct. 2.....	1		At Habana from Spanish port. Vessel left Vigo, Spain, Sept. 19.

## **TYPHUS FEVER.**

Algeria:				
Departments—				
Algiers.....	May 11-Aug. 31.....	44		
Constantine.....	May 21-Aug. 31.....	20		
Oran.....	May 11-Aug. 31.....	352		
Austria:				Feb. 15-June 26, 1920: Cases, 67.
Vienna.....	Feb. 15-June 26.....	65		
Belgium:				
Ghent.....	Sept. 11-Oct. 23.....	10	1	
Bermuda:				
Hamilton.....	Oct. 18-23.....	2		
Bolivia:				
La Paz.....	May 2-June 30.....		17	
Do.....	July 1-Sept. 30.....	7	21	
Brazil:				
Ceara.....	Apr. 25-June 12.....		4	
Do.....	July 11-24.....		2	
Bulgaria:				
Sofia.....	June 20-25.....	2		
Chile:				Mar. 1-June 30, 1920: Cases, 1,338; deaths, 241.
Antofagasta.....	July 5-11.....			Present.
Caleta Colosa.....	May 10-16.....		2	
Concepcion.....	Mar. 8-June 28.....	31	39	
Do.....	June 29-Sept. 20.....		13	Oct. 13: Cases, 31.
Coquimbo.....	Aug. 8-Oct. 7.....	1	1	
Santiago.....	Mar. 1-June 30.....	479	86	Sept. 10: Cases, 186.
Valparaiso.....	May 2-Sept. 24.....		29	
China:				
Antung.....	July 12-Oct. 17.....	64	9	Report week ended July 31, 1920, not received.
Eastern Chinese Railway.....	Aug. 9-Sept. 25.....	5		At stations on line.
Harbin.....				On Eastern Chinese Railroad line. Year 1919: Cases, 301.
				At other stations on line, 789 cases.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 26 to Dec. 3, 1920—Continued.**

## **TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Chosen (Korea):				
Chemulpo.....	June 1-30.....	3	.....	
Seoul.....	Mar. 1-Apr. 30.....	4	1	
Czechoslovakia.....				Feb. 1-28, 1920: Cases, 88; deaths, 7.
Leipnik.....	Feb. 22-28.....	1	.....	Quarantine station.
Panzig.....	June 20-26.....	1	.....	Feb. 27-Mar. 27, 1920: Cases, 16.
Do.....	July 25-31.....	1	1	
Egypt:				
Alexandria.....	May 7-June 24.....	338	86	
Do.....	June 25-Oct. 7.....	141	62	
Cairo.....	Apr. 2-June 24.....	867	370	
Do.....	July 9-Aug. 19.....	108	68	
Port Said.....	Apr. 9-June 24.....	112	53	
Germany.....				Feb. 22-Mar. 27, 1920: Cases, 23. Among troops, 4; among persons from Poland, 8. Mar. 28-June 26, 1920: Cases, 96. July 18-Sept. 28, 1920: Cases, 14. Additional cases, June 18-July 10, 16.
Great Britain:				
Belfast.....	Oct. 24-Nov. 6.....	4	2	
Dublin.....	May 23-June 19.....	3	1	
Do.....	Oct. 16-22.....	23	.....	
Dundee.....	July 4-10.....	1	.....	
Glasgow.....	May 30-June 5.....	.....	1	
Queenstown.....	Aug. 1-7.....	1	.....	
Greece:				
Athens.....	June 27-July 21.....	.....	5	
Drama.....	July 12-18.....	1	.....	
Patras.....	June 29-July 4.....	.....	1	
Piræus.....	June 29-July 5.....	.....	1	
Saloniki.....	Apr. 12-27.....	384	42	
Do.....	June 28-Oct. 10.....	133	57	
Guatemala:				
Guatemala City.....	Aug. 9-15.....	.....	1	
Hungary.....				Jan. 19-May 30, 1920: Cases, 51.
Budapest.....	Jan. 10-June 20.....	28	.....	
Italy:				
Catania.....	July 10-17.....	3	.....	
Trieste.....	May 16-23.....	5	.....	
Do.....	June 13-Oct. 30.....	261	17	
Japan:				
Kobe.....	Aug. 17-23.....	7	.....	
Nagasaki.....	May 25-June 27.....	2	1	
Do.....	Sept. 13-Oct. 16.....	4	1	
Jugo-Slavia.....				Feb. 1-June 23, 1920: Cases, 691; deaths, 92.
Java:				
East Java—				
Surabaya.....	June 10-16.....	1	.....	
West Java—				
Batavia.....	May 28-June 30.....	5	1	
Mesopotamia:				
Bagdad.....	Aug. 1-31.....	1	.....	
Mexico:				
Chihuahua.....	May 31-June 6.....	.....	1	
Nogales.....	Aug. 9-14.....	2	.....	
San Luis Potosi.....	June 8-July 8.....	.....	2	
Do.....	July 2-Sept. 13.....	1	.....	Present.
Poland.....				Sept. 19. Present.
Warsaw.....				Jan. 1-Mar. 31, 1920: Cases, 87,910; deaths, 19,733.
				Jan. 1-Feb. 29, 1920: Cases, 911; deaths, 117.
				Mar. 14-Apr. 10, 1920: Cases, 181; deaths, 23.
Serbia.....				
Portugal:				
Oporto.....	Apr. 4-June 24.....	15	6	
Do.....	Aug. 1-Nov. 6.....	10	2	
Russia:				
Riga.....	June 25-Sept. 30.....	84	.....	
Simferopol.....				Jan.-June, 1920: Cases, 3,955; deaths, 509.
Vilna.....	Sept. 28.....	35	.....	
Vladivostok.....	May 1-21.....	22	2	Jan. 1-Apr. 30, 1920: Cases, 1,264; deaths, 144.
Do.....	July 1-Aug. 31.....	36	4	
Spain:				
Barcelona.....	July 9-15.....	.....	1	
Madrid.....	June 1-30.....	.....	1	
Switzerland:				
Geneva.....	June 28-July 4.....	1	.....	



**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.****Reports Received from June 26 to Dec. 3, 1920—Continued.****TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Tunis:				
Tunis.....	May 24-June 27....	36	18	
Do.....	July 6-Aug. 31....	1	1	
Turkey:				
Constantinople.....	May 16-June 12....	27	.....	
Do.....	June 19-Oct. 9....	25	.....	
Union of South Africa:				
Port Elizabeth.....	Sept. 27-Oct. 2....	1	.....	
Venezuela:				
Maracaibo.....	July 21-27.....	.....	1	

**YELLOW FEVER.**

Brazil:				
Bahia.....	May 23-June 19....	1	.....	
Colombia:				
Buenaventura.....	June 3.....	1	1	
Guatemala.....				Oct. 25, 1920: Present.
Los Amates.....	Aug. 5-Sept. 1....	10	3	Aug. 17: Present at several localities.
Quirigua.....	Aug. 9-15.....	.....	.....	Present.
Virginia.....	Sept. 10.....	1	.....	Station on railway from Puerto Barrios to Guatemala City, 45 miles from Puerto Barrios.
Mexico:				
Culiacan.....	Oct. 16.....	.....	.....	Present.
Empalme.....	Oct. 12.....	1	1	
Guaymas.....	do.....	.....	1	Previously reported, 2 deaths; later information shows 1 death.
Mazatlan.....	Oct. 13.....	1	1	
Progreso.....	July 30.....	1	.....	
Do.....	Aug. 4-18.....	4	2	July 30-Aug. 18, 1920: Cases, 5; deaths, 3.
Puerto Mexico.....	Aug. 24-27.....	1	1	Case arrived Aug. 23 on s. s. Melchor Ocampo from Progreso.
San Blas.....	Sept. 13.....	1	.....	
Tampico.....	Sept. 17.....	1	.....	Previously reported P. H. R., Sept. 10, 1920.
Do.....	Sept. 21-Nov. 4....	3	2	Aug. 26-Sept. 1, 1920: Cases, 5; deaths, 5.
Tuxpam.....	Sept. 1.....	.....	2	Oct. 21-27, 1920: Cases, 27.
Vera Cruz.....	June 22.....	.....	2	Aug. 26-Oct. 27, 1920: Cases, 112; deaths, 59.
Do.....	July 19-Nov. 21....	97	77	
Yucatan State—Campeche.....	Oct. 13.....	1	1	In sailor from s. s. Yumuri. The vessel left Vera Cruz Oct. 1 for Campeche and New Orleans.
Hocoba.....	Sept. 8.....	8	.....	In interior.
Hunucma.....	Sept. 8-Oct. 11....	2	1	Do.
Merida.....	Nov. 5.....	1	.....	From Hunucma.
Sotuta.....	Sept. 8.....	1	1	In interior.
Peru.....				Mar. 1-31, 1920: Cases, 228. Apr. 1-20, 1920: Cases, 64.
Callao.....	Apr. 1-30.....	1	.....	At quarantine station. From s. s. Huallaga.
Catacaos.....	Mar. 1-31.....	14	.....	
Do.....	Apr. 1-30.....	2	.....	
La Huaca.....	Mar. 1-31.....	9	.....	
Do.....	Apr. 1-30.....	5	.....	
Morropon.....	do.....	57	.....	
Munnuella.....	Mar. 1-31.....	12	.....	
Paita.....	do.....	81	.....	
Do.....	Apr. 1-30.....	14	.....	
Piura.....	Mar. 1-31.....	1	.....	
Do.....	Apr. 1-30.....	4	.....	
Salitral.....	Mar. 1-31.....	2	.....	
Sullana.....	do.....	9	.....	
Do.....	Apr. 1-30.....	1	.....	
Salvador.....				Sept. 12-18, 1920: 1 case. Aug. 22-Oct. 11, 1920: Cases, 3; deaths, 1.
Armenia.....	June 20-26.....	1	1	Fatal cases were in Europeans.
San Salvador.....	Aug. 1-21.....	6	2	
Sonsonate.....	May 22-June 24....	59	17	
On vessels:				
S. S. Curacao.....	Nov. 16.....	1	1	At San Francisco, Calif. From Mexican ports, 6 days out from Mazatlan.
S. S. Haraldshaug.....	Sept. 28.....	1	.....	At Pensacola, Fla. From Puerto Barrios, Tampico, and Vera Cruz.
S. S. Soestdijk.....	Sept. 11.....	1	1	At Quarantine, La.
S. S. Yumuri.....	Oct. 13.....	1	1	At Campeche. Vessel left Vera Cruz Oct. 1, 1920.